2020 **MISSOURI NURSING** WORKFORCE REPORT

Center for Health Policy
University of Missouri

MISSOURI
State Board of Nursing

2020 Missouri Nursing Workforce Report

By the University of Missouri Center for Health Policy[1], Office of Rural Health[2], and Missouri State Board of Nursing[3]

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Executive Summary

The following report describes the nursing workforce in Missouri, based on data provided by the Missouri Division of Professional Registration Board of Nursing and Nursys®[1].

- The Professional Registry includes all nurses licensed in Missouri as of June 2020 (n=135,935).
- Nursys® includes more comprehensive data on nurses who enrolled in the Nursys® system between January 2019 and June 2020 (n=131,532).
- Nursys® data were matched with Professional Registry data to create the Merged dataset used throughout this document (n=123,589).

More information on data in Professional Registration, Nursys® and Merged datasets is available in the Summary of Methods section of this report.

Pursuant to section 324.001.14(4), RSMo, all licensee/registrant data or records provided by the State Board of Nursing shall be deemed the property of the State Board of Nursing. Accordingly, this report and all data contained herein is the property of the State Board of Nursing and shall not be used without the express written permission of the State Board of Nursing.

Highlights from the Data
- The most common license type[2] among Missouri nurses is Registered Nurse (RN) with 75.5%, followed by Licensed Practical Nurse (LPN) with 16.4% and Advanced Practice Registered Nurse (APRN) with 8.0%.
    - The State of Missouri has a rate of 90 nurses employed per 10,000 residents, including 28 LPNs, 55 RNs and 7 APRNs per 10,000 residents.
- Both the number and the rate of nurses in rural areas are low compared to metropolitan and micropolitan counties.
    - Most of Missouri's nurses work in metropolitan counties, including 68.1% of LPNs, 86.2% of RNs and 85.5% of APRNs.
    - The rate of nurses per 10,000 residents working in rural Missouri counties is just 77, compared to 118 in micropolitan counties and 156 in metropolitan counties.
- Actively employed nurses are relatively well-distributed across the age spectrum. While just 1.8% of employed Missouri nurses are aged 18-24 and 8.3% are 65 and older, 22.8% are 25-34, 24.7% are 35-44, 21.2% are 45-54 and 21.1% are 55-64.

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[1] Nursys® is a Registered Trademark of the National Council of State Boards of Nursing.
[2] Only Licensed Practical Nurses and Registered Nurses are licensed. An Advanced Practice Registered Nurse (APRN) holds a RN license and then is recognized as an APRN based on national advanced practice certification (https://www.nursinglicensure.org/np-state/missouri-nurse-practitioner/). For purposes of this report, license type is defined as the actual license for LPNs and RNs and recognition for APRNs.

- Of concern are the relatively high rates of nurses nearing retirement (aged 55-64) in some employment settings and counties in the state. See the maps on page 17 for more information.
- Nursing continues to be a female-dominated profession: 93.8% of LPNs, 91.1% of RNs and 86.7% of APRNs are women.
- In terms of race and ethnicity, the data indicate that Missouri's nursing workforce is not as diverse as the general population.
  - The majority of Missouri nurses in all license types are White Alone, including 80.0% of LPNs, 89.3% of RNs and 90.1% of APRNs.
  - According to the most recent estimates from the US Census, 11.8% of Missourians are Black or African American Alone.
    - Black or African American nurses are underrepresented among RNs and APRNs, which have 5.9% and 5.5% reporting their race as Black or African American Alone.
    - LPNs have a higher Black or African American population than the general Missouri population at 16.1%.
  - A small percentage of Missouri nurses are Hispanic or Latinx, including 2.0% LPNs, 2.1% RNs and 1.7% APRNs, while 4.4% of Missourians are Hispanic or Latinx, according to the US Census.
- Many nurses hold multiple degrees, both in nursing and other fields. In terms of highest level of nursing education:
  - Most LPNs have a Vocational or Practical Certificate (95.3%),
  - Over half of RNs have a Baccalaureate Degree (52.3%), and
  - Most APRNs have a Master's degree (81.8%).
    - Ninety-eight APRNs, or 1.0%, have a Doctorate Degree in nursing.
- The vast majority of nurses licensed in Missouri are actively employed full-time in nursing or a position that requires a nursing license, including:
  - 81.6% or 14,302 LPNs,
  - 80.6% or 65,547 RNs, and
  - 82.0% or 7,860 APRNs.
- There are very few RNs and APRNs who report that they are unemployed and looking for work as a nurse (3.5% of RNs and 2.1% APRNs), indicating that there is a limited supply of RNs and APRNs within the state available to meet the current need.
  - A slightly higher percentage of LPNs, 5.3%, report being unemployed and looking for work as a nurse.
- While most nurses in all license types work in one nursing position, including 87.6% LPNs, 90.3% RNs and 81.8% APRNs, a sizeable number of nurses have more than one position, including 12.4% of LPNs, 9.7% of RNs and 18.2% of APRNs.
- A sizeable portion of nurses in all license types work more than the typical 36-40 hours per week considered full-time for most nurses, including 16.5% of LPNs, 19.8% of RNs and 24.8% of APRNs.

- With the exception of Advanced Practice Registered Nurses, the majority of nurses in each position description, or job title, are RNs.
- RNs comprise the largest group of nurses in all employment settings, except the category which includes nursing homes, extended care and assisted living facilities where LPNs comprise the majority of the workforce.
- Within each license type, employment settings vary in the following ways:
    - LPNs are most often working in nursing homes, extended care or assisted living facilities, where over one-third of LPNs (37.8% or 6,222) are employed.
    - Over half of RNs (58.5% or 45,807) work in hospitals.
    - APRNs most often work in hospitals, including 43.6% or 2,173.
        - Another important employment setting for APRNs is ambulatory care, including physician's offices or primary care facilities, with 20.1% or 1,880.
- Employment specialties also vary by license type. The most common specialties include geriatrics or gerontology for LPNs, acute or critical care for RNs and primary care or adult and family health for APRNs.

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Summary of Methods

This report is the result of extensive collaboration between the Missouri Division of Professional Registration Board of Nursing and the Center for Health Policy (CHP) and the Office of Rural Health at the University of Missouri-Columbia.

The data in the report are from two sources: Missouri Division of Professional Registration Board of Nursing Registry and Nursys®.

The Professional Registry (PR) includes all nurses with a non-expired license in Missouri in 2020. The Missouri Board of Nursing provided a raw file with 148,423 entries to the University of Missouri team, including 12,488 duplicate entries. Duplicates typically occur when nurses advance to a new license type. For example, a nurse may have an original entry as a registered nurse, and another entry for advanced practice after completing additional training. The duplicate entry with the highest license type is retained, and the remaining duplicate entries are removed from the dataset, resulting in 135,935 unique nurses in the PR dataset.

The Nursys® dataset is a repository of license and disciplinary data maintained by the not-for-profit National Council of State Boards of Nursing (NCSBN). The Missouri State Board of Nursing is a member of NCSBN. Nursys.com and the Nursys® e-Notify service are maintained by NCSBN with the participation of boards of nursing in order to support the mission and work of individual boards of nursing. Pursuant to the Nursys® e-Notify terms of use, the National Council of State Boards of Nursing (NCSBN) does not sell information. Workforce related information provided in the repository is used for the purposes of nursing workforce research.

The Missouri State Board of Nursing sends license and discipline records to Nursys®. Nurses may then enroll in Nursys e-Notify® and provide workforce information. The workforce information includes education, employment location, setting, and employment status. Data in this report include nurses licensed in Missouri who enrolled in the Nursys® e-Notify system between January 2018 and June 2020 (n=131,532).

During the 2019 license renewal period for registered nurses (RNs) and the 2020 license renewal period for licensed practical nurses (LPNs), enrollment in the Nursys® e-Notify service was required for the first time. As a result, nearly all nurses licensed in Missouri (96.8%) are included in the Nursys® dataset.

For the purposes of this report, nurses in the Professional Registry are matched with those enrolled in Nursys® e-Notify through a three step process:
1. PR and Nursys® datasets are linked on license number, license type, first name, gender, birth year, resulting in 120,864 matched entries.
2. Unmatched entries are linked a second time using license number, license type and birth year, resulting in an additional 2,724 matched entries.
3. The remaining unmatched entries are linked a third time on license number and license type, resulting in 1 more matched entry.

The charts below compare PR, Nursys®and Merged datasets on license type, age and gender to demonstrate the representativeness of the Merged dataset.

Number of Nurses by License Type
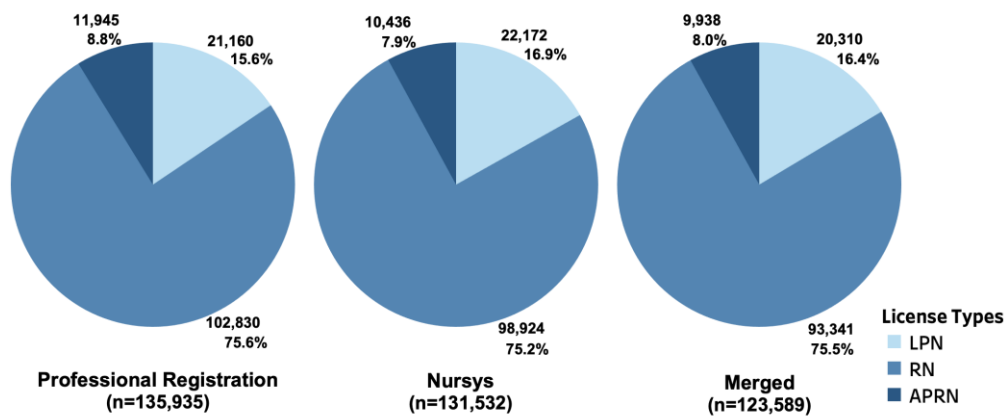
The chart above shows the proportion of LPNs, RNs and APRNs in the Professional Registration, Nursys® and Merged datasets. The proportion of LPNs, RNs and APRNs is closely parallel across the three datasets, with the most common license type being RNs, who represent about three-quarters of nurses in Missouri.

APRN License Types for Nurses in Missouri, 2020
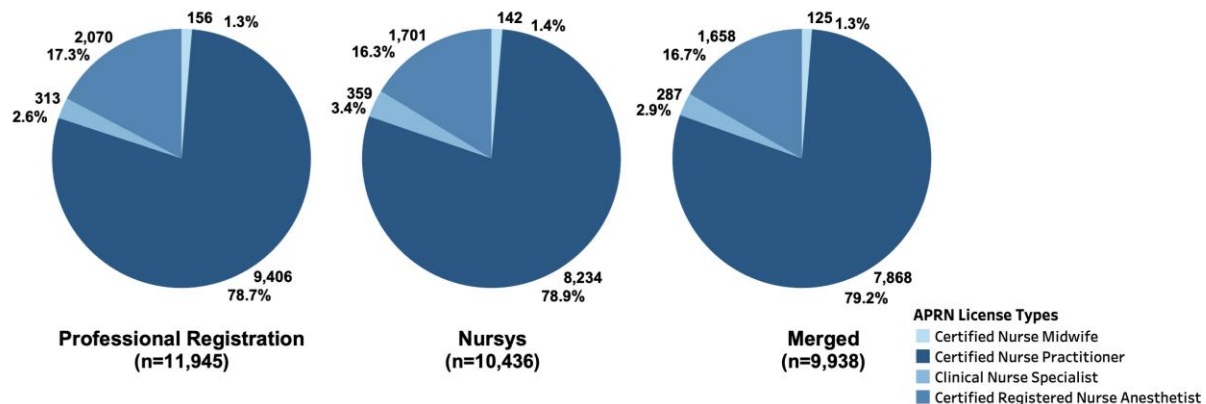
APRNs have four license types[3]: Certified Nurse Midwife (CNM), Certified Nurse Practitioner (CNP), Clinical Nurse Specialist (CNS) and Certified Registered Nurse Anesthetist (CRNA). The most common APRN license type in Missouri is Certified Nurse Practitioner, representing approximately 79% of APRNs across the three datasets.

The distribution of license types is consistent across the three data sets, thus demonstrating that the merged data set provides a representative sample of Missouri's nursing population.

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[3] APRN Consensus Work Group & National Council of State Boards of Nursing APRN Advisory Committee. (2008). *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education*. National Council of State Boards.

Distribution of Ages for LPNs, RNs, APRNs in Missouri (Professional Registration), 2020, (n=135,034)

Stacked bar chart. Number of LPNs, RNs, APRNs on y-axis (0K–30K), age brackets on x-axis.

Age	Total	APRN	RN	LPN
18-24	3,757 (2.8%)	681	3,076	—
25-34	29,785 (22.1%)	2,153	23,493	4,139
35-44	30,854 (22.8%)	3,915	21,740	5,199
45-54	25,408 (18.8%)	1,804	19,129	4,475
55-64	27,842 (20.6%)	2,113	21,514	4,215
65+	17,388 (12.9%)	1,059	13,878	2,451
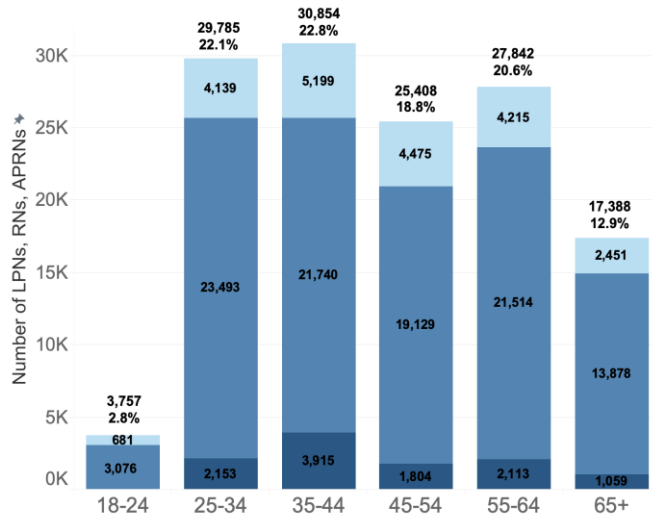
Distribution of Ages for LPNs, RNs, APRNs in Missouri (Nursys), 2020, (n=131,532)

Age	Total	APRN	RN	LPN
18-24	2,270 (1.7%)	690	1,580	—
25-34	27,842 (21.2%)	1,582	21,931	4,329
35-44	30,173 (22.9%)	3,403	21,279	5,491
45-54	26,256 (20.0%)	2,401	19,073	4,782
55-64	27,925 (21.2%)	1,993	21,475	4,457
65+	17,066 (13.0%)	1,057	13,586	2,423
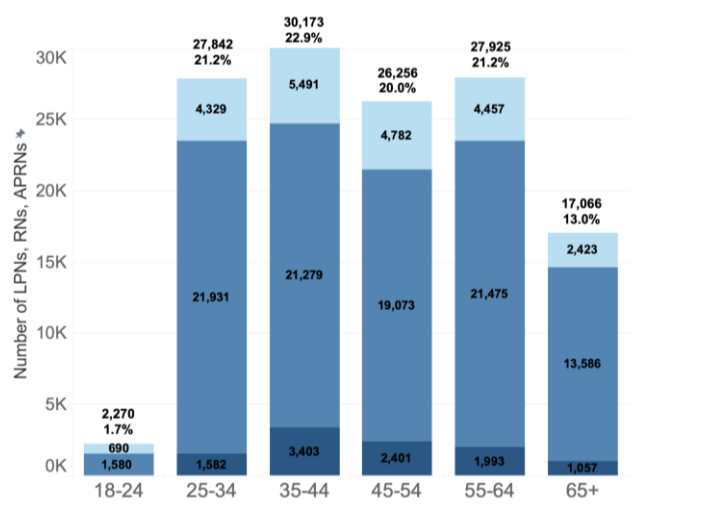
Distribution of Ages for LPNs, RNs, APRNs in Missouri (Merged), 2020, (n=121,589)

Age	Total	APRN	RN	LPN
18-24	2,116 (1.7%)	605	1,511	—
25-34	25,979 (21.4%)	1,546	20,452	3,981
35-44	28,637 (23.6%)	3,303	20,224	5,110
45-54	24,907 (20.5%)	2,302	18,194	4,411
55-64	26,515 (21.8%)	1,879	20,567	4,069
65+	15,435 (12.7%)	908	12,393	2,134
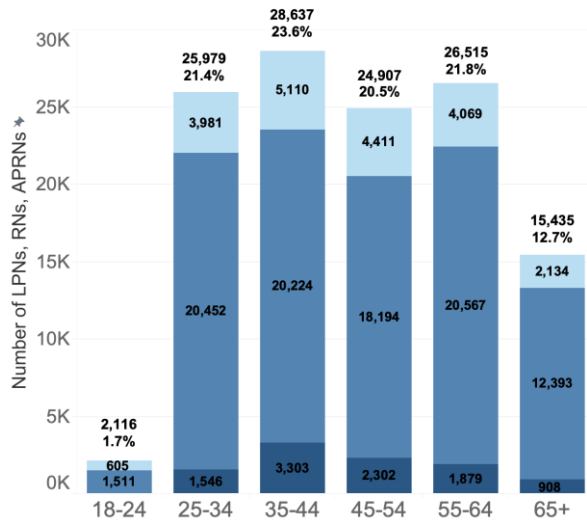
License Types
- LPN
- RN
- APRN

The age distribution for the Professional Registration, Nursys® and Merged datasets are nearly identical, with the exception of the youngest two age brackets. Although the Professional Registration has slightly more nurses in the 18-24 and 25-34 age brackets, the differences are quite small (less than 1.2%).

Gender of LPNs, RNs, APRNs in Missouri, 2020

Professional Registration (n=135,935)
- 11,787 8.7%
- 124,148 91.3%

Nursys (n=131,562)
- 11,291 8.6%
- 2,051 1.6%
- 28 0.02% (Non-Binary)
- 118,192 89.8%

Merged (n=123,583)
- 1,891 1.5%
- 10,622 8.6%
- 28 0.03% (Non-Binary)
- 111,042 89.8%

Gender
- Female
- Male
- Non-Binary
- Not Answered
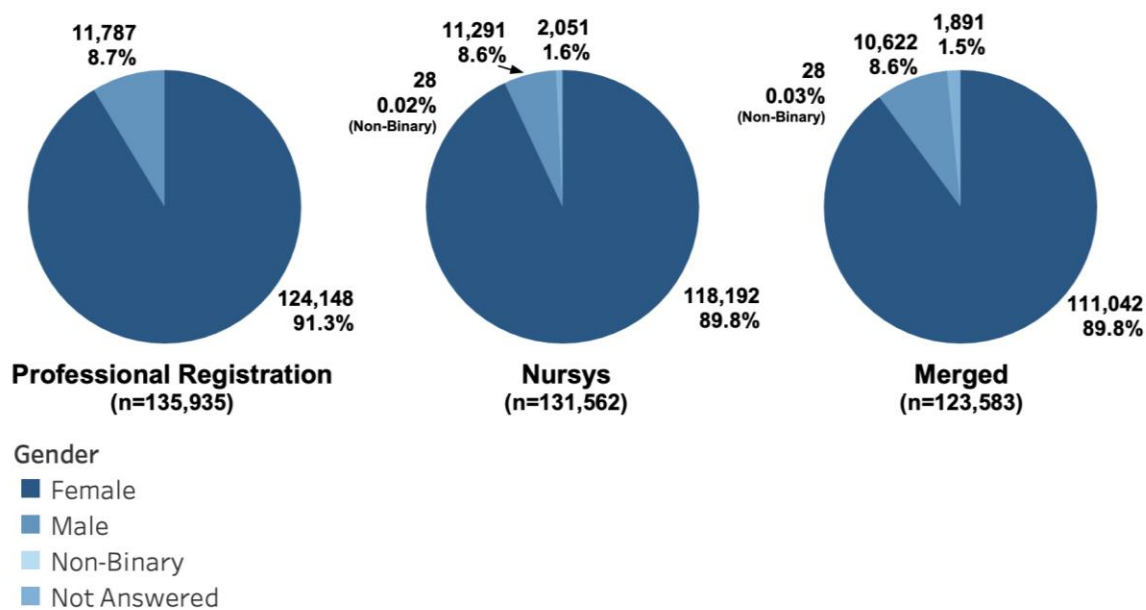
Gender questions are asked differently by Professional Registration (PR) and Nursys®. In PR, licensees declare either female or male. In Nursys®, respondents are also able to identify as non-binary, resulting in 34 nurses or 0.03% of both the Nursys® and Merged populations in this category. An additional 2,015 (1.6%) Nursys® respondents and 1,891 (1.5%) of the Merged population skipped the question.

In terms of female and male distribution, the Professional Registration has a slightly higher percentage of respondents who identify as female (91.3%) than either Nursys® (89.8%) or Merged (89.8%); some of this difference might be explained by respondents who chose not to answer this question or selected Non-Binary in Nursys®.

With 90.9% of licensed nurses included in the Merged dataset, as well as close similarities in license type, age and gender, it is clear that the Merged dataset is a representative sample of Missouri's nurses. The remainder of this report utilizes the Merged dataset, which provides the most comprehensive data on Missouri's nursing workforce ever available. The analysis includes data from all respondents who were actively employed in nursing or in a position that requires a nursing degree (full-time, part-time, per diem, or as a volunteer) (n=105,545).

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Reference Map: Missouri Counties by CBSA Type

CBSA Type

- Metropolitan
- Micropolitan
- Rural
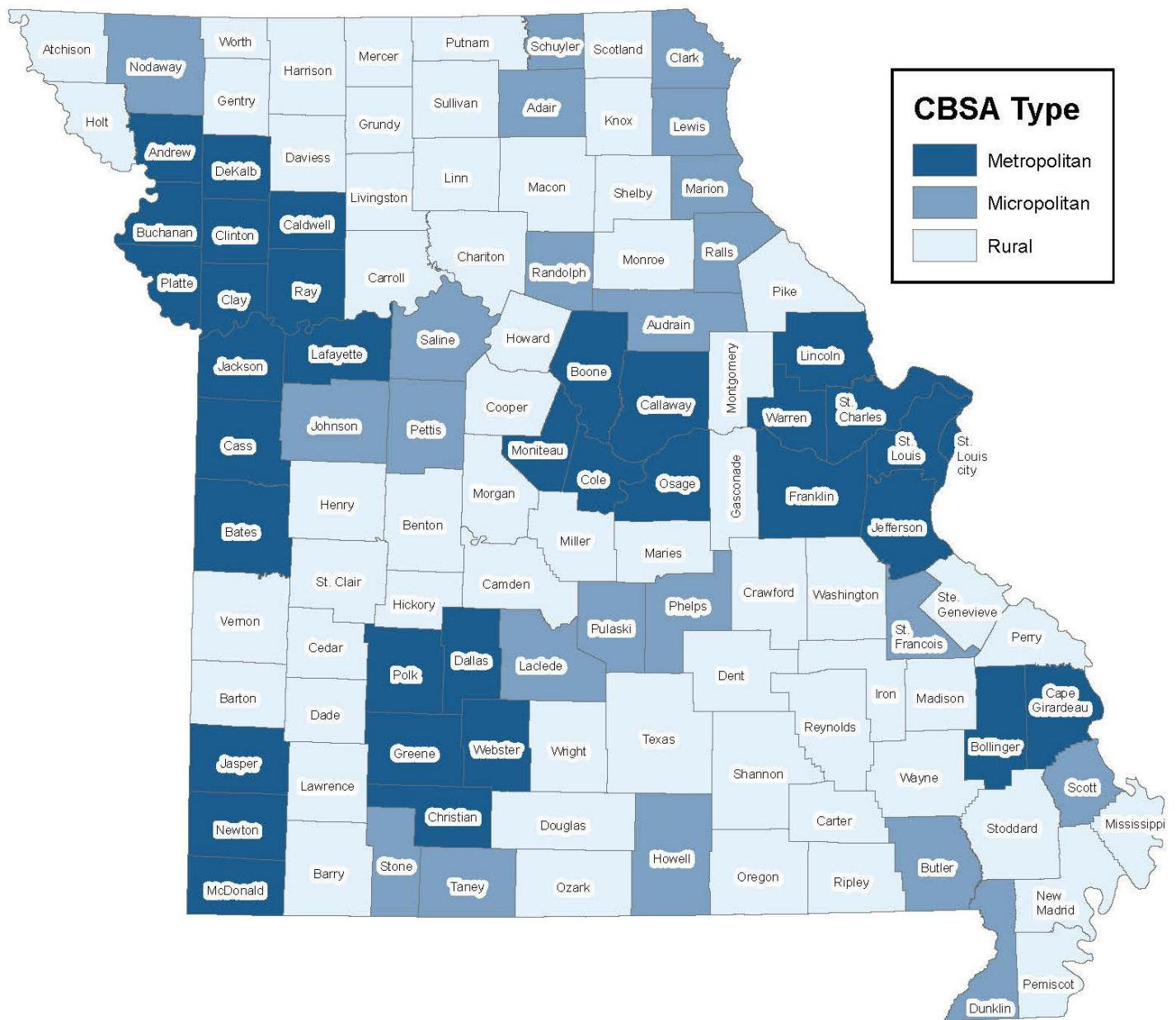
Created by the Missouri Spatial Data Information Service for the Center for Health Policy
Data source: American Community Survey 2013-2017
14 October 2020

Geographic Distribution

Like most of the United States, rural areas in Missouri face challenges meeting the demand for healthcare services. The following geographic analysis provides a series of maps and charts to learn more about the geographic distribution of nurses across the state.

The maps group counties into 5 categories, showing nurse distribution at the county level. Counties with no shading or lighter shading have lower rates of nurses per 10,000 residents; counties with darker shading have higher rates. Nurses per 10,000 residents is a ratio that normalizes for population density at the county level. While many Missouri counties have fewer than 10,000 residents, this ratio allows comparisons among counties with different populations, much like "percent" ratios (i.e. "per 100").

The 5 groups on the maps are created using the Jenks Natural Breaks method within ArcGIS Pro mapping software. This method uses an algorithm to best group similar values in the Merged dataset and maximize the differences between groups.

The maps also indicate core-based statistical areas (CBSAs), geographic areas defined by the U.S. Office of Management and Budget (OMB). A CBSA includes one or more counties (or county-equivalents like the City of St. Louis) anchored by an urban center plus the adjacent counties that are socioeconomically tied to the urban center by commuting. Metropolitan areas have an urban center with more than 50,000 residents and are shown with a diamond pattern on the maps below. Micropolitan areas have an urban center between 10,000-50,000 residents and are designated with horizontal lines on the maps below. For the purposes of this report, counties without a CBSA are defined as rural, and have a solid background on the maps.

In general, the maps below indicate that overall rural counties have lower rates of nurses per 10,000 residents than their metropolitan and micropolitan counterparts. This aligns with our knowledge of Health Professional Shortage Areas, defined by the U.S. Health Resources and Services Administration (HRSA). This pattern is consistent for both the county of employment and the county of residence. Of potential concern for meeting primary care needs in rural areas, there are low rates of APRNs employed in rural Missouri counties (5 APRNs per 10,000 residents) compared to micropolitan (9 per 10,000 residents) and metropolitan (14 per 10,000 residents). The exception to these overall patterns is with LPNs, who have higher employment rates in micropolitan (38 LPNs per 10,000 residents) and rural counties (27 LPNs per 10,000 residents) than in metropolitan counties (22 LPNs per 10,000 residents).

It is interesting to note that the rate of nurses by county of residence (161 per 10,000 residents) is substantially higher than the rate of nurses by county of employment (90 per 10,000 residents). This indicates that a significant number of nurses who live in Missouri are commuting across the border to work. It is common for the health care workforce to commute to provide specialized care in health care regional trade centers; commuting to provide primary care occurs often as well.

County of Employment
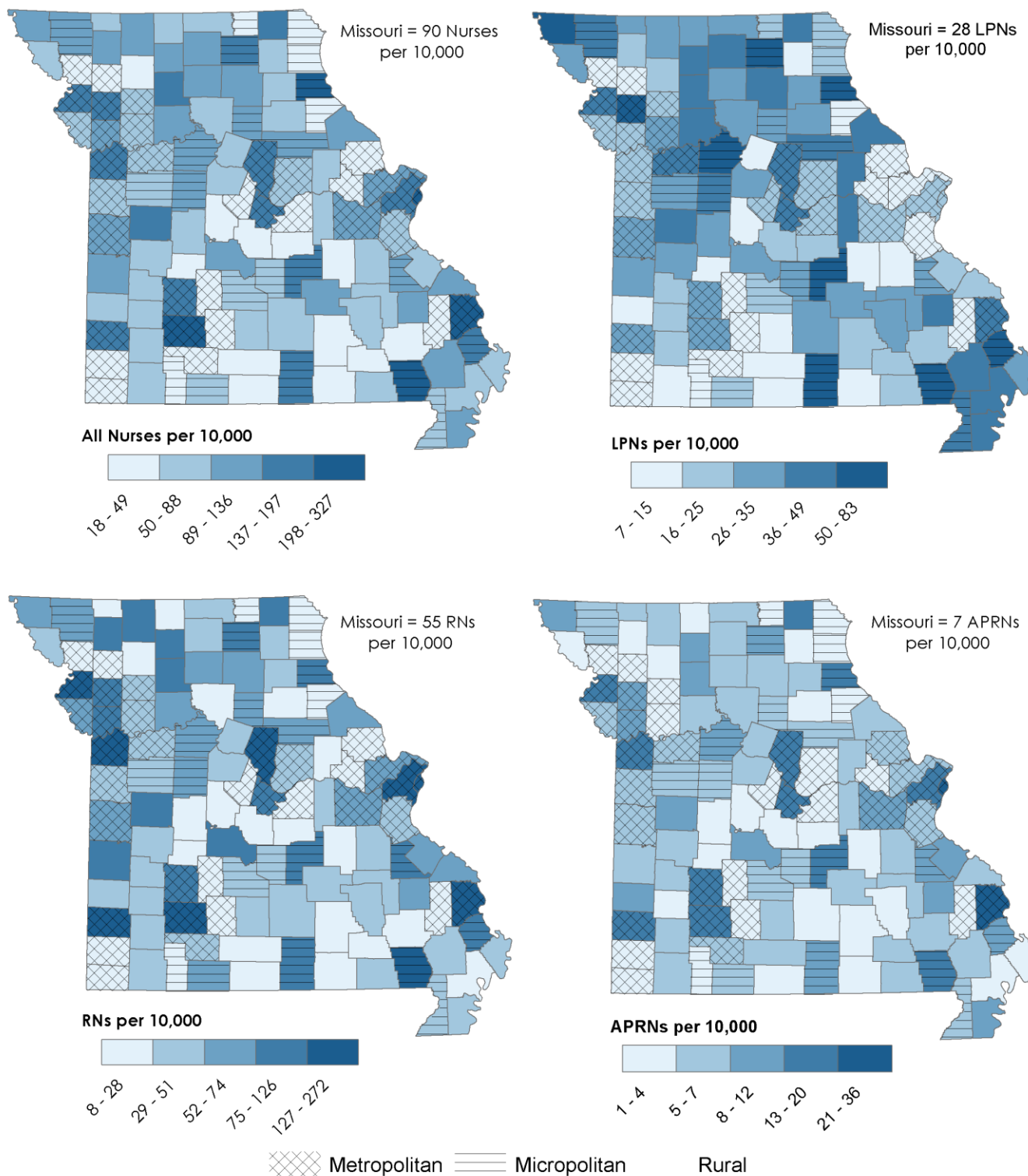
Missouri = 90 Nurses per 10,000

All Nurses per 10,000

18 - 49   50 - 88   89 - 136   137 - 197   198 - 327

Missouri = 28 LPNs per 10,000

LPNs per 10,000

7 - 15   16 - 25   26 - 35   36 - 49   50 - 83

Missouri = 55 RNs per 10,000

RNs per 10,000

8 - 28   29 - 51   52 - 74   75 - 126   127 - 272

Missouri = 7 APRNs per 10,000

APRNs per 10,000

1 - 4   5 - 7   8 - 12   13 - 20   21 - 36

Metropolitan   Micropolitan   Rural

Source: Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

County of Residence

Missouri = 161 Nurses per 10,000

All Nurses per 10,000

74 - 124   125 - 155   156 - 183   184 - 218   219 - 273

Missouri = 48 LPNs per 10,000

LPNs per 10,000

12 - 26   27 - 38   39 - 50   51 - 69   70 - 114

Missouri = 105 RNs per 10,000

RNs per 10,000

53 - 76   77 - 94   95 - 115   116 - 132   133 - 185

Missouri = 9 APRNs per 10,000

APRNs per 10,000

2 - 5   6 - 8   9 - 11   12 - 15   16 - 27

Metropolitan   Micropolitan   Rural
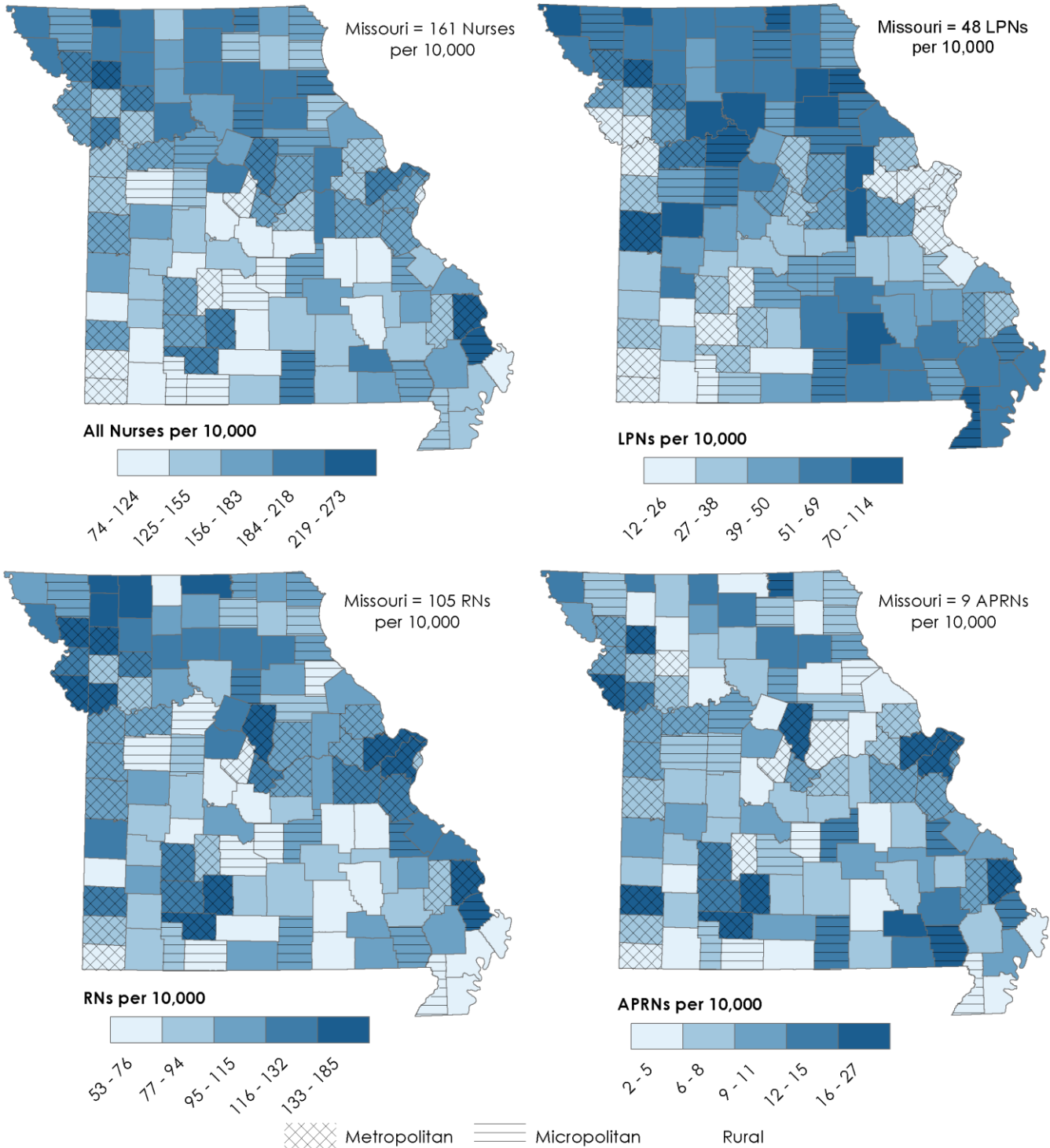
Source: Missouri Division of Professional Registration, 2020
Created by: Center for Health Policy, University of Missouri

Employment ZIP Code for Nurses Living in Missouri

The next series of maps provides the employment ZIP codes for LPNs, RNs and APRNs who reside in Missouri. The majority of all three groups of nurses both work and live in Missouri, including 14,953 LPNs; 64,349 RNs and 7,446 APRNs. Those who live in Missouri but have an employment ZIP code outside Missouri are most likely to work in a border state (949 LPNs; 7,425 RNs and 1,175 APRNs), particularly within the Kansas City and St. Louis metropolitan regions. There are a small number of each type of nurse with employment ZIP codes outside the border states, including 335 LPNs; 4,334 RNs and 448 APRNs.

Employment ZIP Code of all Licensed Practical Nurses whose Residence is in Missouri
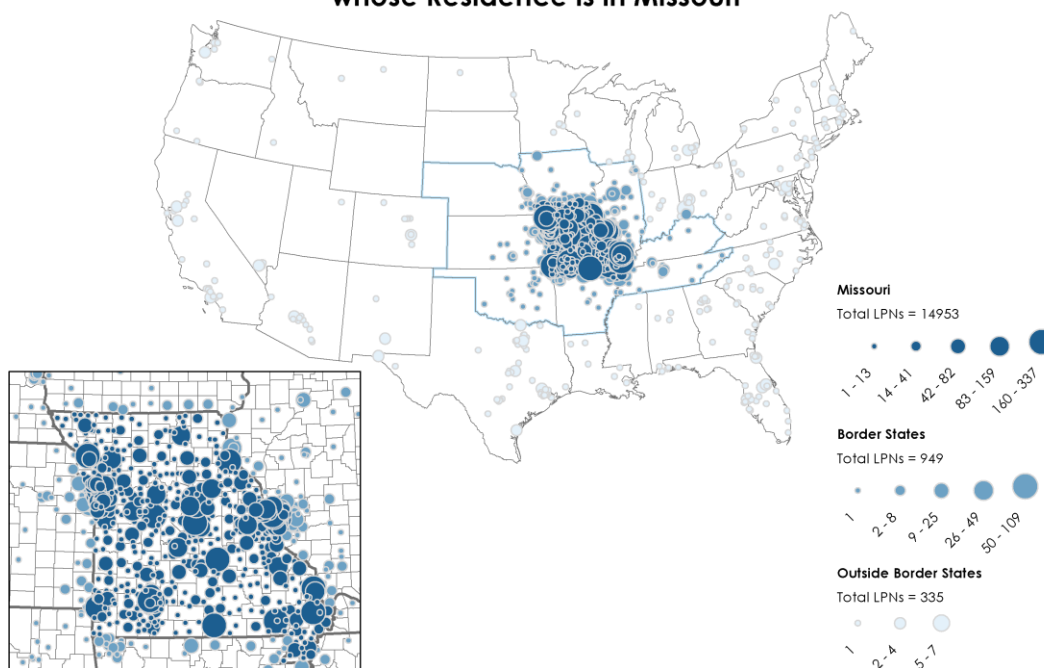
Missouri
Total LPNs = 14953
1 - 13   14 - 41   42 - 82   83 - 159   160 - 337

Border States
Total LPNs = 949
1   2 - 8   9 - 25   26 - 49   50 - 109

Outside Border States
Total LPNs = 335
1   2 - 4   5 - 7

Source: Missouri Division of Professional Registration, 2020; Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

Employment ZIP Code of all Registered Nurses whose Residence is in Missouri
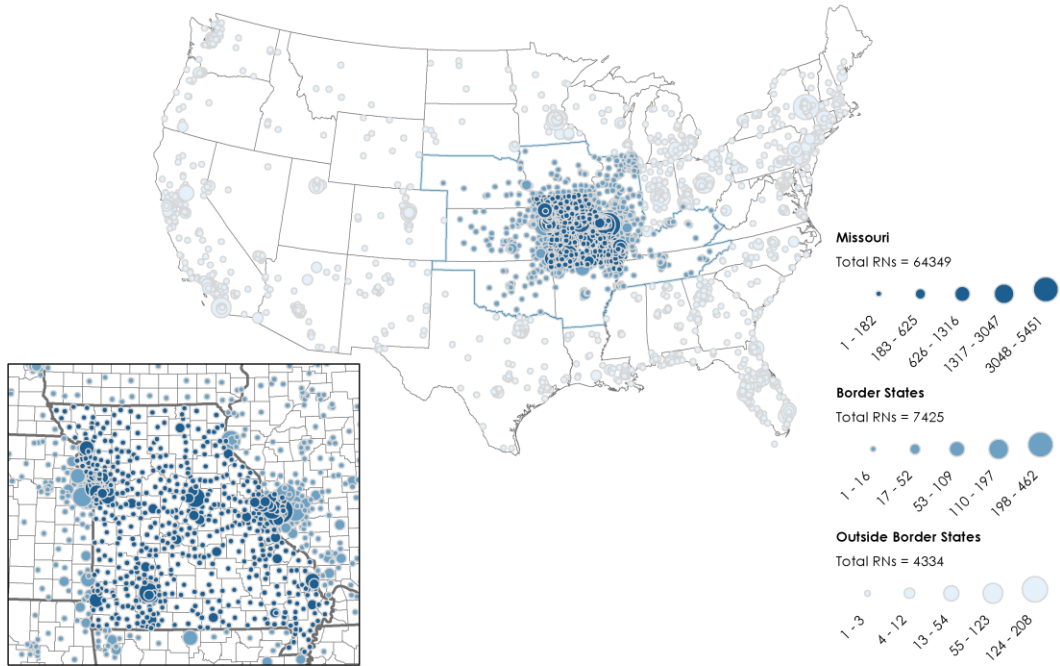
Missouri
Total RNs = 64349

1 - 182   183 - 625   626 - 1316   1317 - 3047   3048 - 5451

Border States
Total RNs = 7425

1 - 16   17 - 52   53 - 109   110 - 197   198 - 462

Outside Border States
Total RNs = 4334

1 - 3   4 - 12   13 - 54   55 - 123   124 - 208

Source: Missouri Division of Professional Registration, 2020; Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

Employment ZIP Code of all Advanced Practice Registered Nurses whose Residence is in Missouri
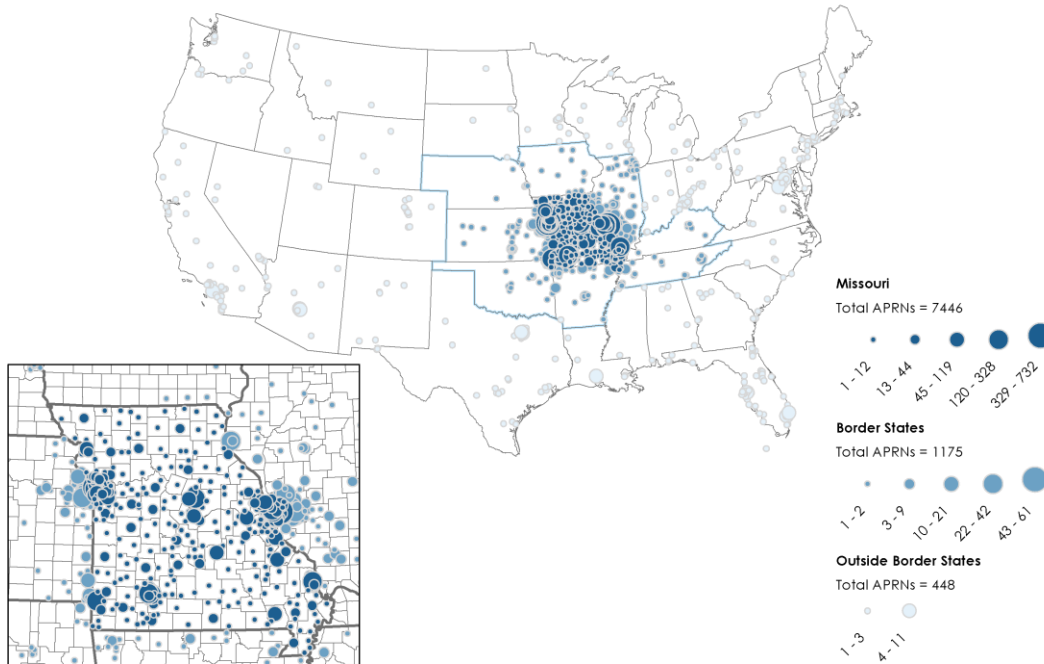
Missouri
Total APRNs = 7446

1 - 12   13 - 44   45 - 119   120 - 328   329 - 732

Border States
Total APRNs = 1175

1 - 2   3 - 9   10 - 21   22 - 42   43 - 61

Outside Border States
Total APRNs = 448

1 - 3   4 - 11

Source: Missouri Division of Professional Registration, 2020; Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

Employment of LPNs, RNs and APRNs in Metropolitan, Micropolitan or Rural Counties in Missouri and Adjacent Counties, 2020, (n=94,330)

Does not include nurses who are employed outside of Missouri or adjacent counties (n=11,215); (n=894) LPNs; (n=9,326) RNs; (n=995) APRNs.

LPN
(n=15,762)

- 2,189 / 13.9%
- 2,842 / 18.0%
- 10,731 / 68.1%

RN
(n=70,145)

- 3,889 / 5.5%
- 5,780 / 8.2%
- 60,476 / 86.2%

APRN
(n=8,423)

- 482 / 5.7%
- 737 / 8.7%
- 7,204 / 85.5%
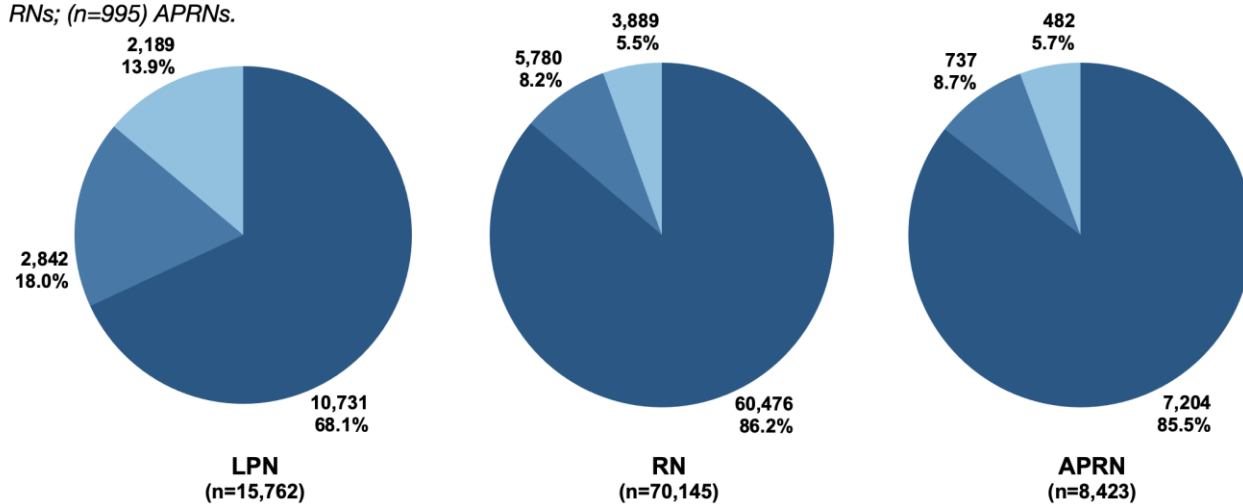
Core-based Statistical Area (CBSA)
- ■ Metropolitian
- ■ Micropolitan
- ■ Rural

- While there are many nurses with a Missouri license and an out-of-state employment county, the majority of these are located in out-of-state counties adjacent to Missouri. The chart above reports the number and percent of LPNs, RNs and APRNs who work in metropolitan, micropolitan or rural counties in Missouri or adjacent counties (n=94,330).
- The majority of nurses work in metropolitan counties in Missouri or adjacent counties.
  - Over two-thirds of LPNs (68.1% or 10,731) and over 85% of both RNs (86.2% or 60,476) and APRNs (85.5% or 7,204) work in metropolitan counties.
  - LPNs are more likely to work in micropolitan (2,842 or 18.0%) or rural (2,189 or 13.9%) counties than RNs and APRNs.
    - The higher proportion of LPNs working in micropolitan and rural areas corresponds with their employment setting: more LPNs work in nursing homes, extended care and assisted living facilities than any other setting; many of these facilities are located in rural areas and small towns.
- The maps above indicate that rural Missouri counties have lower rates of nurses per 10,000 residents than micropolitan and metropolitan areas. The overall rate of nurses per 10,000 residents is 77 in rural counties, 118 in micropolitan counties and 156 in metropolitan counties.
- While the majority of Missouri counties are defined as rural by their Core Based Statistical Area, there appear to be fewer employment opportunities for LPNs, RNs and APRNs than in metropolitan and micropolitan counties.
- The low number of nurses employed in rural counties often coincides with a shortage of health care providers and facilities, including hospitals, urgent care and other health care services.

Residence of LPNs, RNs, and APRNs in Metropolitan, Micropolitan, or Rural Counties in Missouri, 2020, (n=86,097)

Does not include nurses who live outside Missouri (n=19,448); (n=1,111) LPNs; (n=16,122) RNs; (n=2,215) APRNs.

LPN
(n=18,901)
- 3,795 — 20.1%
- 3,544 — 18.8%
- 11,562 — 61.2%

RN
(n=74,959)
- 7,436 — 9.9%
- 6,735 — 9.0%
- 60,788 — 81.1%

APRN
(n=7,603)
- 587 — 7.7%
- 674 — 8.9%
- 6,342 — 83.4%
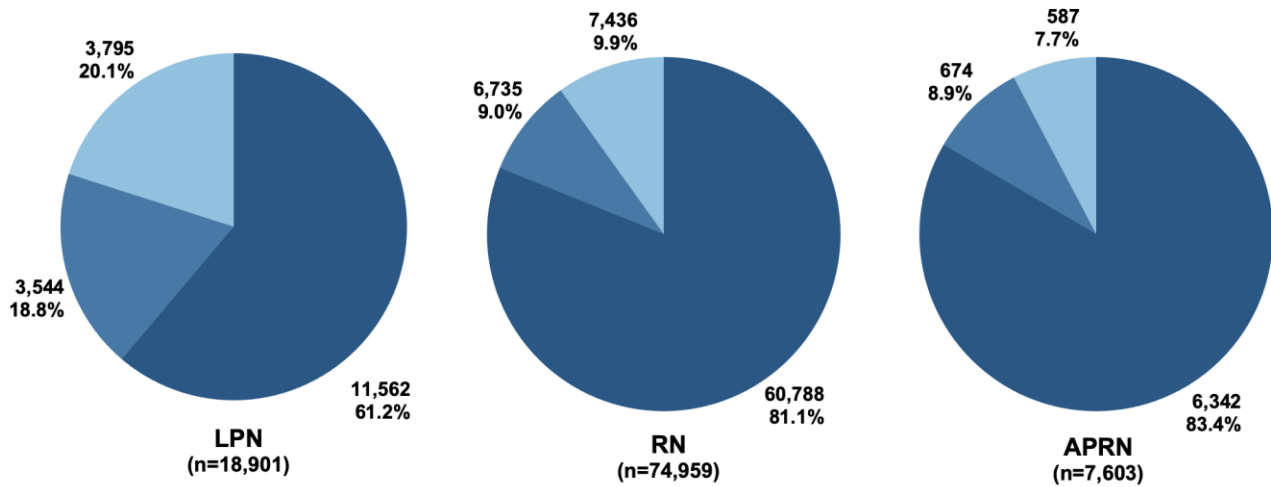
Core-based Statistical Area (CBSA)
- ■ Metropolitian
- ■ Micropolitan
- ▪ Rural

- While all nurses licensed in Missouri are surveyed for their employment county, county of residence is only available for those living in Missouri. A total of 19,448 nurses licensed in Missouri live outside state borders. Based on data available for employment county, it is likely that many of these nurses live in counties adjacent to Missouri.
- Among nurses living in Missouri, most live in metropolitan counties, including 61.2% or 11,562 LPNs; 81.1% or 60,788 RNs; and 83.4% or 6,342 APRNs.
  - The higher proportion of LPNs living in rural areas aligns with their employment setting: the largest group of LPNs works in nursing homes, extended care and assisted living facilities, many of which are located in rural or micropolitan areas.
  - With just 7.7% of APRNs living in rural areas, filling the demand for primary care providers in rural areas of the state may remain a challenge.

Age Distribution

In general, the nursing workforce is well distributed among age cohorts, and the average age of nurses in each license type is similar, with LPNs averaging 45.2, RNs 45.7 and APRNs 46.5. The largest age cohort for both LPNs and APRNs is 35-44 years old, while the largest cohort for RNs is 25-34. Of potential concern for the future of Missouri's RN workforce, almost one-third of practicing RNs (30.3% or 24,074) are age 55 and older, and may retire or consider retiring in the near future.

To see where the nursing workforce is near retirement age, a series of maps including those older than 54 and employed in Missouri counties or the City of St. Louis is provided. Two counties, Dekalb and Reynolds, have half (50.0%) of their nurse workforce over the age of 54. In Worth county, 58.3% of employed nurses are over the age of 54, making this the Missouri county with the highest percentage of nurses in this age range.

Maps include data grouped into 5 categories to show the percent of nurses who are over the age of 54 by all nurses and each nursing license type. Counties with no shading or lighter shading have lower percentages of nurses over age 54; counties with darker shading have higher percentages of nurses over 54.

As detailed in other sections of this report, the 5 groups on the maps are created using the Jenks Natural Breaks method within ArcGIS Pro mapping software. This method uses an algorithm to best group similar values in the Merged dataset and maximize the differences between groups.

The maps also indicate core-based statistical areas (CBSAs), geographic areas defined by the U.S. Office of Management and Budget (OMB). A CBSA includes one or more counties (or county-equivalents like the City of St. Louis) anchored by an urban center plus the adjacent counties that are socioeconomically tied to the urban center by commuting. Metropolitan areas, shown with a diamond pattern on the maps below, have an urban center with more than 50,000 residents. Micropolitan areas have an urban center between 10,000-50,000 residents and are designated with horizontal lines on the maps below. For the purposes of this report, counties without a CBSA are defined as rural and have a solid background on the maps.

Percent of Nurses Older Than 54 Years
by County of Employment
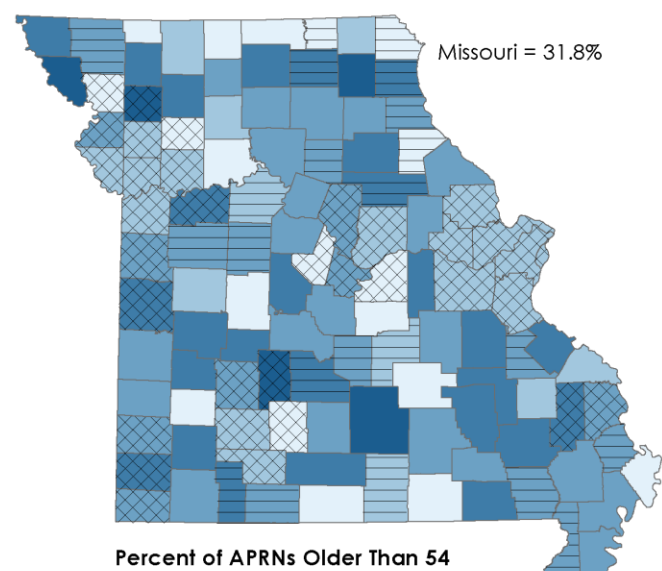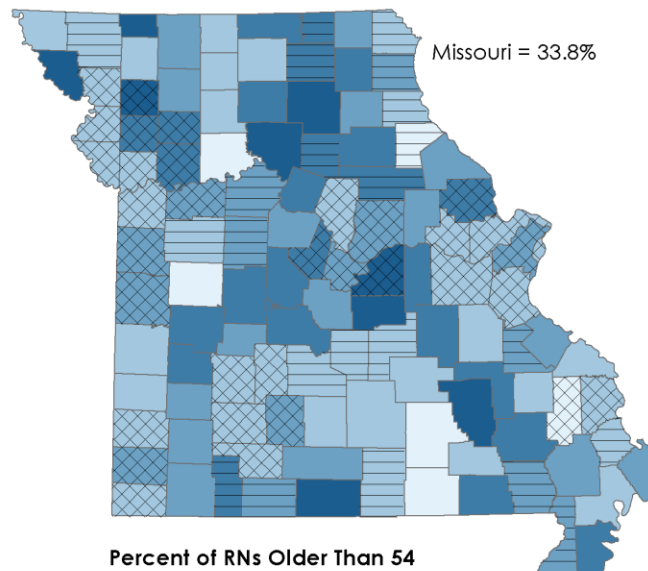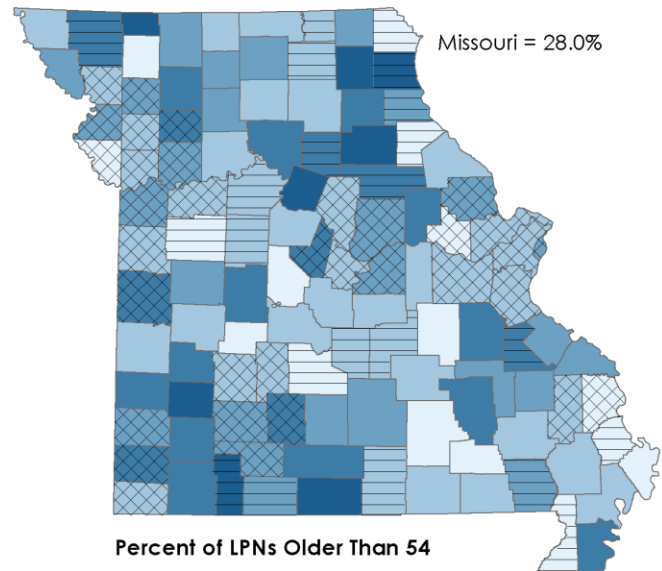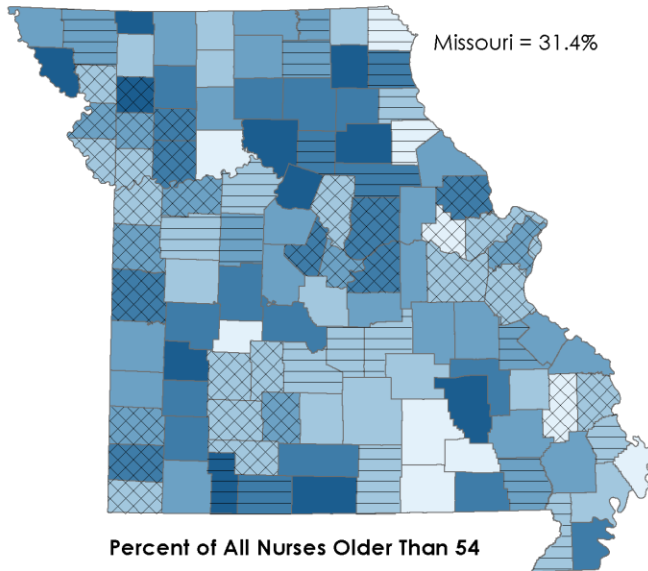
Missouri = 31.4%

Percent of All Nurses Older Than 54

13% - 23% 24% - 28% 29% - 34% 35% - 41% 42% - 58%

Missouri = 28.0%

Percent of LPNs Older Than 54

0% - 19% 20% - 26% 27% - 32% 33% - 42% 43% - 71%

Missouri = 33.8%

Percent of RNs Older Than 54

5% - 21% 22% - 30% 31% - 37% 38% - 49% 50% - 64%

Missouri = 31.8%

Percent of APRNs Older Than 54

0% - 9% 10% - 26% 27% - 40% 41% - 67% 68% - 100%

Metropolitan   Micropolitan   Rural

Source: Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

Distribution of Ages for LPNs in MO, 2020, (n=16,656)
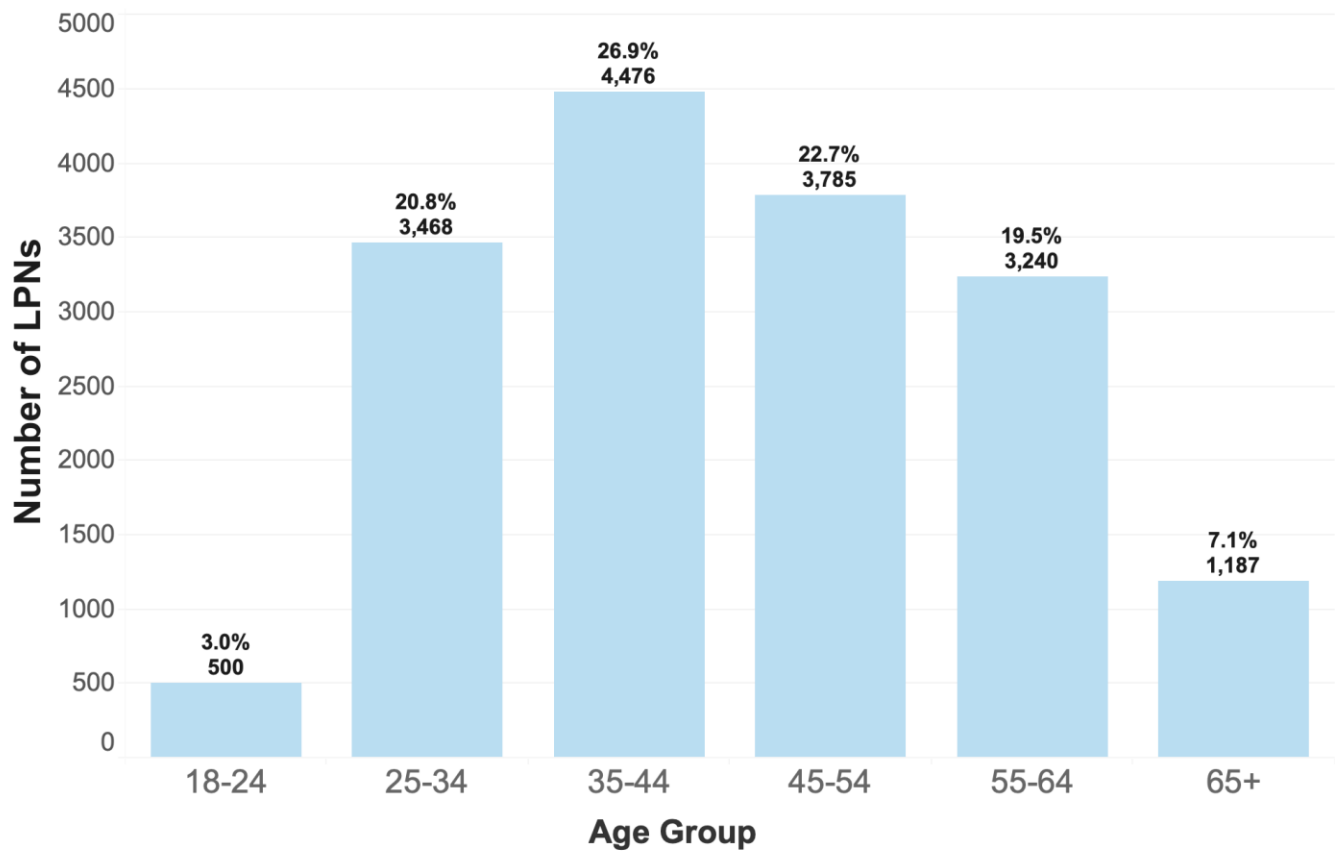
- Over one-quarter of actively employed Licensed Practical Nurses (LPNs) are aged 35-44 (26.9% or 4,476).
- The youngest age cohort, aged 18-24, has the fewest LPNs with 3.0% or 500.
- A small percentage of LPNs (7.1%) are age 65 and older.

Distribution of Ages for RNs in MO, 2020, (n=79,471)
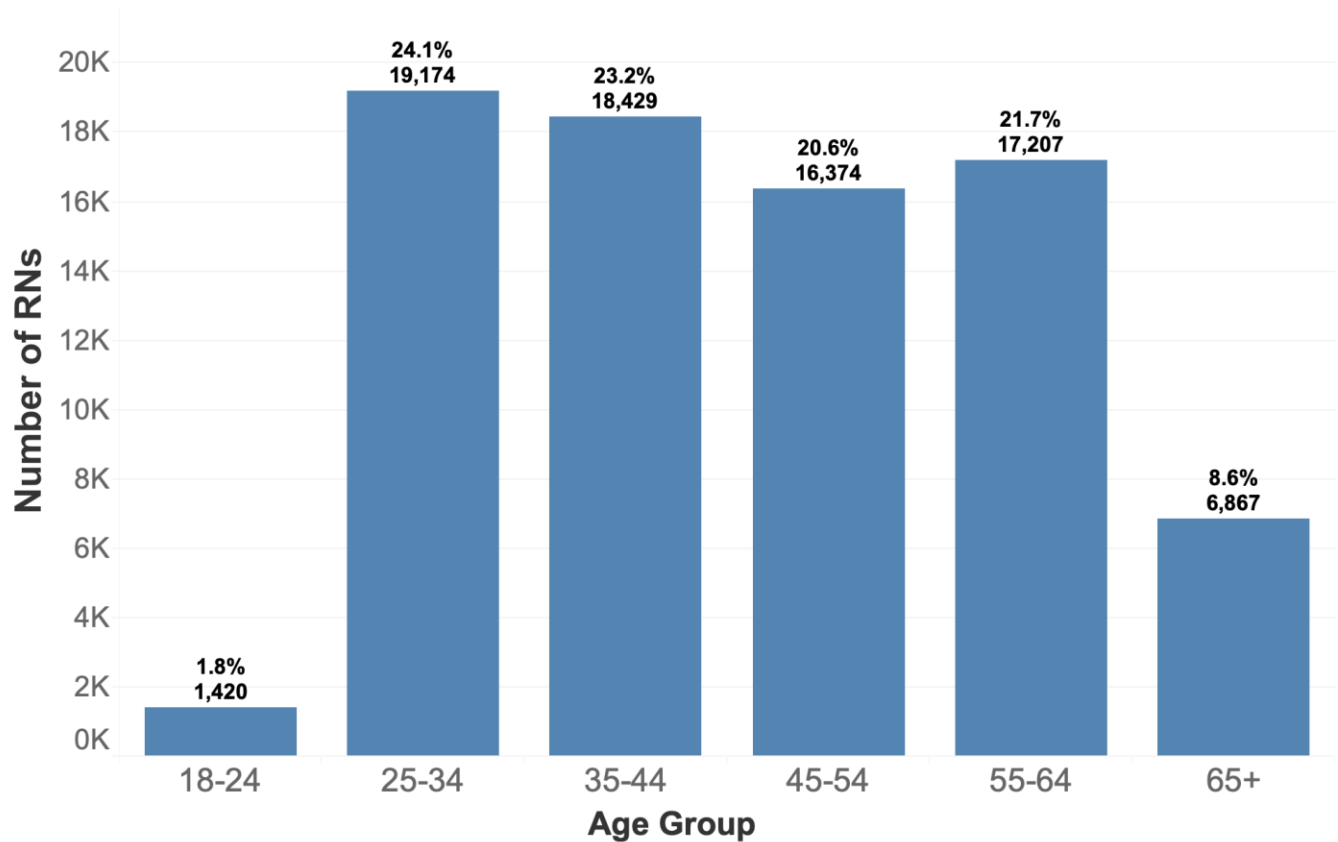
- RNs who are actively employed are fairly evenly distributed among the age cohorts from 25 to 64, with the most common age group being 25-34 (24.1% or 19,174).
- Less than two percent of working RNs are aged 18-24 (1.8% or 1,420).
- When compared to LPNs and APRNs, a larger percentage of the RN workforce is age 55 and older, with almost one-third of RNs (30.3% or 27,074) falling into those categories.

Distribution of Ages for APRNs in MO, 2020, (n=9,418)

Number of APRNs (y-axis)

Age Group (x-axis)

Age Group	18-24	25-34	35-44	45-54	55-64	65+
Percent / Total	0.0% 0	15.6% 1,472	33.9% 3,188	23.5% 2,213	19.0% 1,791	8.0% 754
Certified Nurse Midwife		12	38	29	20	15
Certified Nurse Practitioner		1,333	2,655	1,751	1,309	441
Clinical Nurse Specialist		7	30	39	123	67
Certified Registered Nurse Anesthetist		120	465	394	339	231

APRN Types
- Certified Nurse Midwife
- Certified Nurse Practitioner
- Clinical Nurse Specialist
- Certified Registered Nurse Anesthetist

- The chart above shows the overall number and percent of Advanced Practice Registered Nurses (APRNs) in each of the age groups. APRN certifications comprising the overall population of APRNs, including Certified Nurse Midwife, Certified Nurse Practitioner, Clinical Nurse Specialist and Certified Registered Nurse Anesthetist, are shown in different shades of blue.
- The largest age group of APRNs are those aged 35 to 44, comprising approximately one-third of the actively employed population (33.9% or 3,188).
- There are no APRNs under the age of 25 in Missouri, likely due to the higher levels of education required.

Percentage of LPNs, RNs, and APRNs by Age: 54 and Younger and 55 and Older, 2020, (n=104,075)

Does not include nurses who did not report their employment setting (n=1,470).

Employment Setting		Age: <55	Age: >/=55
Inpatient Care- Open to the Public	**Hospital**	77.4%	22.6%
	Nursing Home/Extended Care/Assisted Living	67.8%	32.2%
Outpatient Care- Open to the Public	**Ambulatory Care/Physician's Office/Primary Care**	67.2%	32.8%
	Community Health	68.9%	31.1%
	Dialysis Center	68.9%	31.1%
	Home Health	60.0%	40.0%
	Palliative Care/Hospice	65.1%	34.9%
Institutional Care- Specified Populations	**Correctional Facility**	70.8%	29.2%
	School Health Service	63.3%	36.7%
Administration, Education, Other	**Insurance Claims/Benefits**	65.6%	34.4%
	Occupational Health	49.6%	50.4%
	Public Health	70.5%	29.5%
	School of Nursing	53.6%	46.4%
	Other	64.3%	35.7%

Percentage

- The chart above is provided to give perspective on the the age distribution of nurses in all license types within each employment setting collected by the Nursys® survey.
  - Additional information on employment setting is provided later in this report.
- Employment settings with at least 40% of actively employed nurses age 55 and older include occupational health (50.4%), school of nursing (46.4%), and home health (40.0%).

Gender Distribution

Analysis indicates that nursing continues to be a female-dominated profession, with 91.2% of Missouri's actively employed nurses identifying as female. APRNs are the license type with the highest proportion of males, including 13.3% or 1,227 nurses.

Beginning in 2019, Nursys® respondents were able to identify as non-binary, with 0.03% or 29 actively employed nurses selecting this category. An additional 1,595 (1.5%) actively employed nurses chose not to answer this question. In order to protect privacy, data on non-binary people (n=29) and those who skipped the question (n=1,595) are removed from the charts and analysis below.

Maps include data grouped into 5 categories showing the ratio of male to 100 female nurses. Counties with no shading or lighter shading have the fewest male nurses relative to their female counterparts; counties with darker shading have more male nurses per 100 female nurses. When considering all license types, the highest male to female ratio is in Taney County, with a ratio of 17 male nurses for every 100 female nurses. The actual number of nurses in Taney County includes 70 male and 415 female nurses. According to the maps below, an even gender ratio (i.e., 100:100) exists in just four counties in Missouri, and only within the APRN license type: Lewis, Hickory, Putnam and Texas.

As mentioned earlier in the report, the 5 groups on the maps are created using the Jenks Natural Breaks method within ArcGIS Pro mapping software. This method uses an algorithm to best group similar values in the Merged dataset and maximize the differences between groups.

The maps also indicate core-based statistical areas (CBSAs), geographic areas defined by the U.S. Office of Management and Budget (OMB). A CBSA includes one or more counties (or county-equivalents like the City of St. Louis) anchored by an urban center plus the adjacent counties that are socioeconomically tied to the urban center by commuting. Metropolitan areas, shown with a diamond pattern on the maps below, have an urban center with more than 50,000 residents. Micropolitan areas have an urban center between 10,000-50,000 residents and are designated with horizontal lines on the maps below. For the purposes of this report, counties without a CBSA are defined as rural and have a solid background on the maps.

Gender Ratio by County of Employment

All Nurses - Male to Female Ratio

0 - 2   3 - 4   5 - 7   8 - 11   12 - 17

LPNs - Male to Female Ratio

0   1 - 4   5 - 7   8 - 11   12 - 20

RNs - Male to Female Ratio

0 - 2   3 - 6   7 - 9   10 - 13   14 - 20

APRNs - Male to Female Ratio

0 - 5   6 - 18   19 - 31   32 - 67   68 - 100

Metropolitan   Micropolitan   Rural
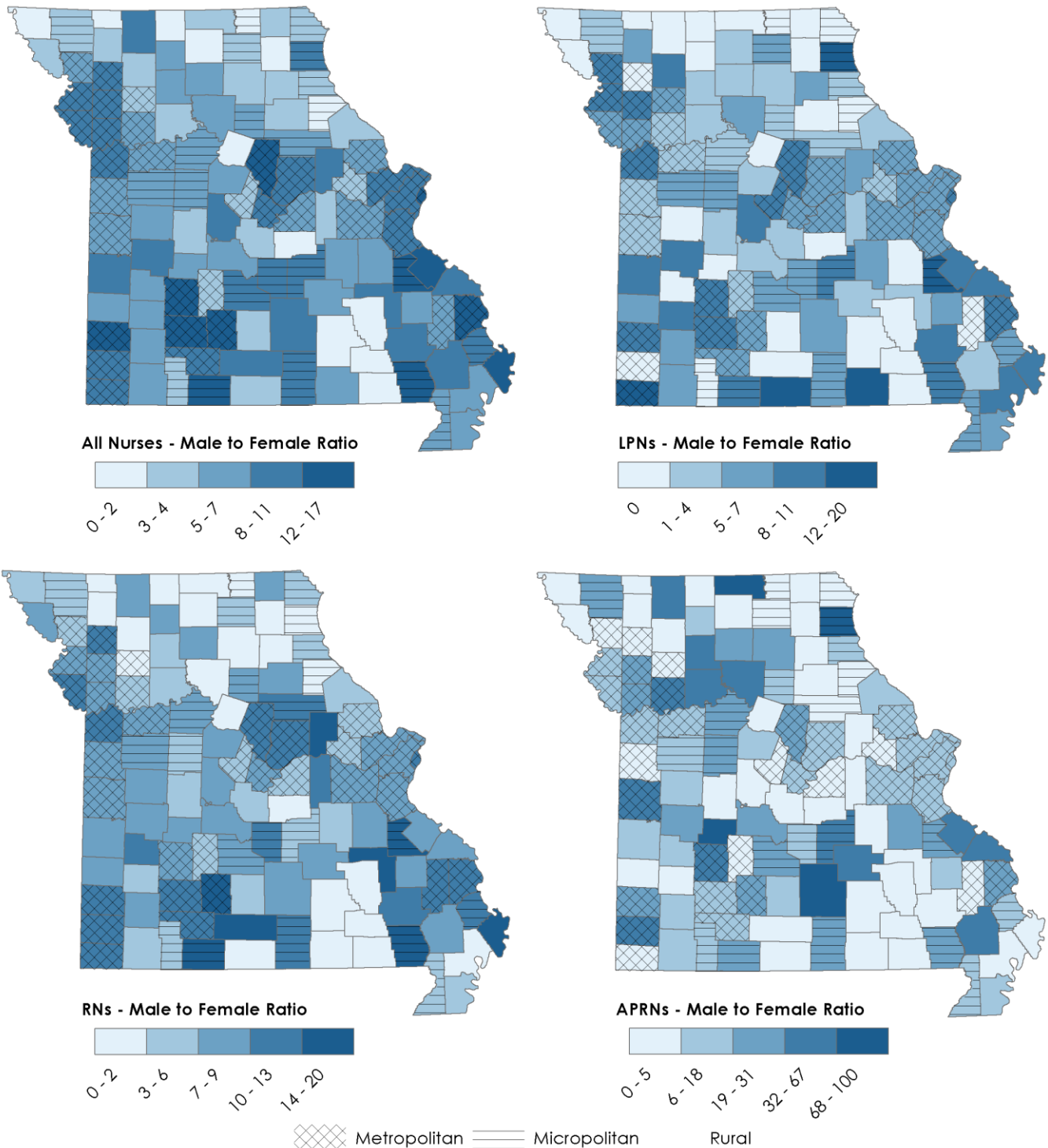
Source: Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

Gender of LPNs, RNs, APRNs in Missouri, 2020, (n=103,921)

Does not include nurses who selected non-binary or who did not answer (n=1,624)
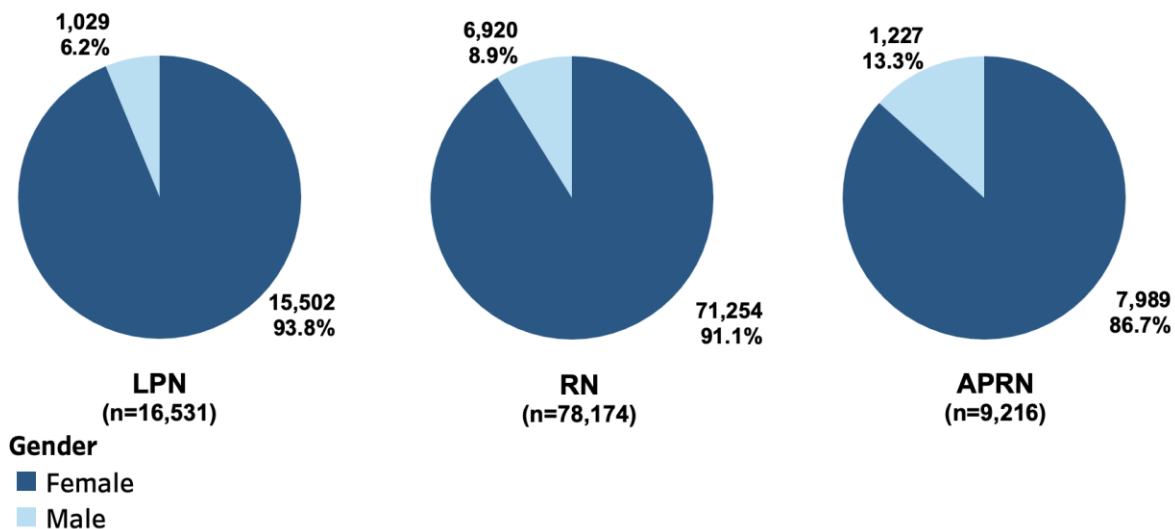
1,029
6.2%

15,502
93.8%

LPN
(n=16,531)

6,920
8.9%

71,254
91.1%

RN
(n=78,174)

1,227
13.3%

7,989
86.7%

APRN
(n=9,216)

Gender
- ■ Female
- ■ Male

- Nursing continues to be a female-dominated profession: 93.8% of LPNs, 91.1% of RNs and 86.7% of APRNs are women.
- In order to protect privacy, data on non-binary people (n=29) and those who skipped the question (n=1,595) are removed from these charts.

Race and Ethnicity

In 2019, Nursys® aligned their collection of data on race and ethnicity with U.S. Census standards, which allow respondents to report multiple races and report their ethnicity as a separate category from race.

Race categories include African American, American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, Two or More Races and White. White Alone and African American Alone comprise the two largest categories of LPNs, RNs and APRNs in Missouri, and are reported along with "Other" on the charts below. The category of "Other" is detailed in a second chart, showing the distribution of nurses identifying with another race category. Among actively employed nurses who fell into the category "Other," the most commonly selected race category overall was Asian, with 48.4% or 1,507 for RNs and 57.2% or 186 for APRNs. The largest category with "Other" for LPNs is Two or More Races with 57.7% or 290.

Ethnicity includes those who identify as Hispanic or Latinx, and those who do not. A small number of nurses in Missouri identify as Hispanic or Latinx, including 2.0% or 328 LPNs, 2.1% or 1,672 RNs and 1.7% or 162 APRNs. According to 2018 Population Estimates from the US Census Bureau, 4.4% of Missourians are Hispanic or Latinx, demonstrating that this ethnicity is underrepresented among nurses of all license types.

Race of LPNs, RNs, APRNs in Missouri, 2020, (n=104,921)
Does not include nurses who did not report their race (n=624)

LPN
(n=16,568)

RN
(n=79,005)

APRN
(n=9,348)

Race
- Black/African American Alone
- White Alone
- Other
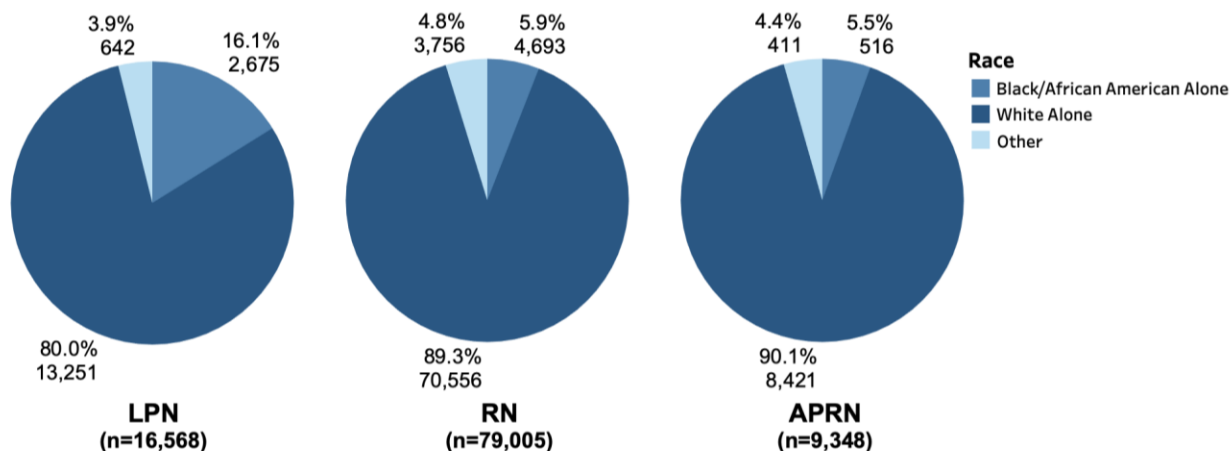
Race of LPNs, RNs, APRNs in Missouri Represented in "Other," 2020, (n=3,940)
Does not include nurses who selected the category "Other" (n=869)
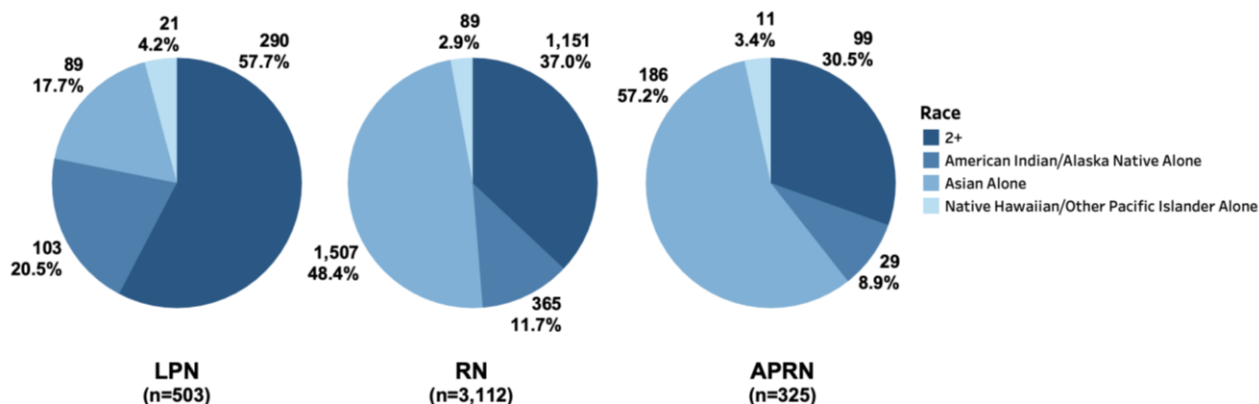
LPN
(n=503)

RN
(n=3,112)

APRN
(n=325)

Race
- 2+
- American Indian/Alaska Native Alone
- Asian Alone
- Native Hawaiian/Other Pacific Islander Alone

- The majority of Missouri nurses in all license types are White Alone, including 80.0% of LPNs, 89.3% of RNs and 90.1% of APRNs.
- According to 2019 Population Estimates from the US Census Bureau, 11.8% of Missourians are Black or African American Alone.
  - Blacks or African Americans are underrepresented among RNs and APRNs, which have 5.9% and 5.5% reporting their race as Black or African American Alone.
  - The percentage of LPNs who are Black or African American Alone (16.1% or 2,675) is almost 5% higher than the general Missouri population.
- In the first graph, "Other" includes American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, Two or More Races, and nurses who did not identify with any of the race categories provided and selected "other."
- The second graph details race categories for those who declared one or more race categories, removing those who selected "Other" (n=869). The most common categories are Two or More Races for LPNs (57.7% or 290), and Asian for RNs (48.4% or 1,507) and APRNs (57.2% or 186).

Ethnicity of LPNs, RNs, APRNs in Missouri, 2020, (n=105,545)

LPN (n=16,656)
- 328 — 2.0%
- 16,328 — 98.0%

RN (n=79,471)
- 1,672 — 2.1%
- 77,799 — 97.9%

APRN (n=9,418)
- 162 — 1.7%
- 9,256 — 98.3%

Ethnicity
- Hispanic/Latinx
- Not Hispanic/Latinx
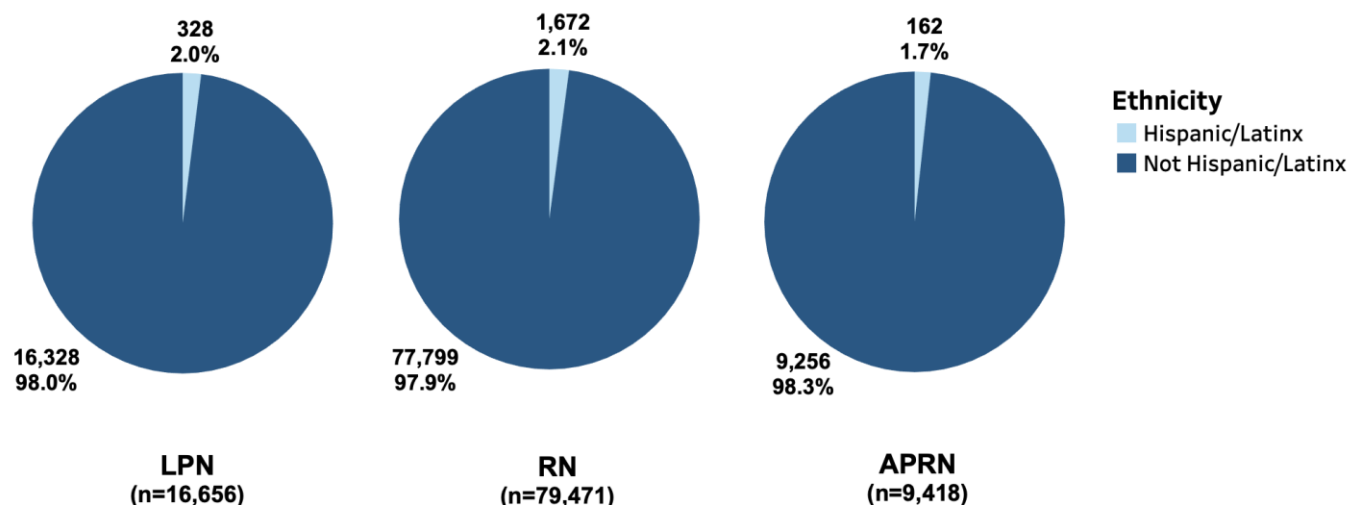
- A small percent of Missouri nurses are Hispanic or Latinx, including 2.0% or 328 LPNs, 2.1% or 1,672 RNs and 1.7% or 162 APRNs.
- According to 2019 Population Estimates from the US Census Bureau, 4.4% of Missourians are Hispanic or Latinx, indicating that this population is underrepresented among LPNs, RNs and APRNs in Missouri.

Education

The Merged dataset includes multiple education measurements, including highest level of education, highest level of nursing education, and initial level of nursing education. Many nurses hold multiple degrees, both in nursing and other fields, and many nurses enter the field with one type of diploma or degree and add additional nursing degrees over time. The following analysis explores highest level of nursing education for LPNs, RNs and APRNs.

Highest Level of Nursing Education of LPNs, 2020, (n=16,645)
Does not include LPNs who selected other degree (n=11).

Highest Level of Nursing
- Vocational/Practical Nursing Certificate
- Nursing Diploma
- Nursing Associate Degree
- Nursing Baccalaureate Degree
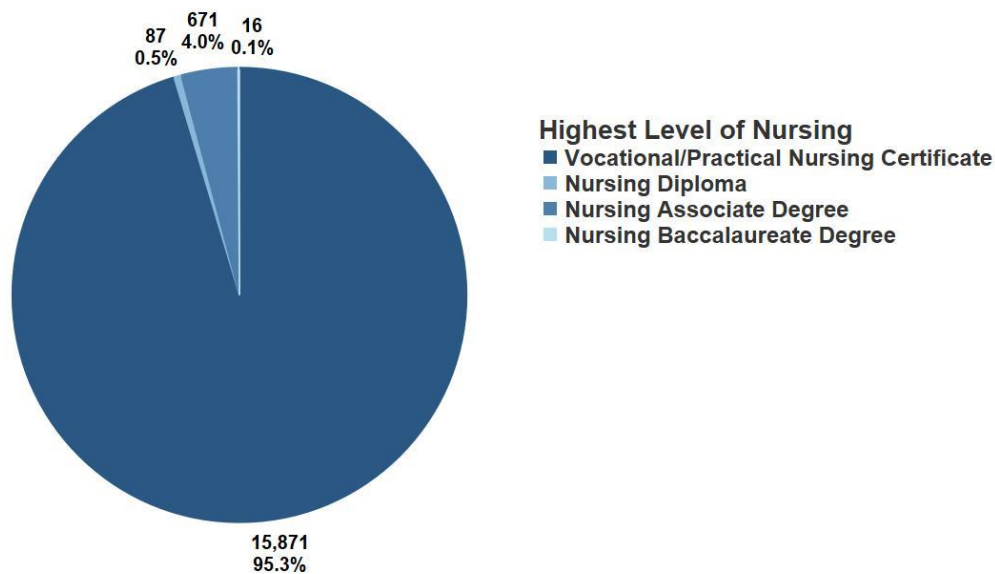
- This chart describes the highest level of nursing education for LPNs. The vast majority of actively employed LPNs hold a Vocational or Practical Nursing Certificate (95.3% or 15,871).
- A small percentage of LPNs hold an Associate Degree in Nursing (4.0% or 671).[4]

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[4] Missouri law allows a person who has completed a RN program to obtain a LPN license after completing a course on the role of a LPN and passing the national LPN licensure exam. That may account for LPNs with a Nursing Baccalaureate Degree.

Highest Level of Nursing Education of RNs, 2020, (n=79,402)

Does not include RNs who did not report their highest level of nursing education (n=17) or who selected other degree (n=52)

Highest Level of Nursing
- Vocational/Practical Nursing Certificate
- Nursing Diploma
- Nursing Associate Degree
- Nursing Baccalaureate Degree
- Nursing Master's Degree
- Nursing Doctoral Degree
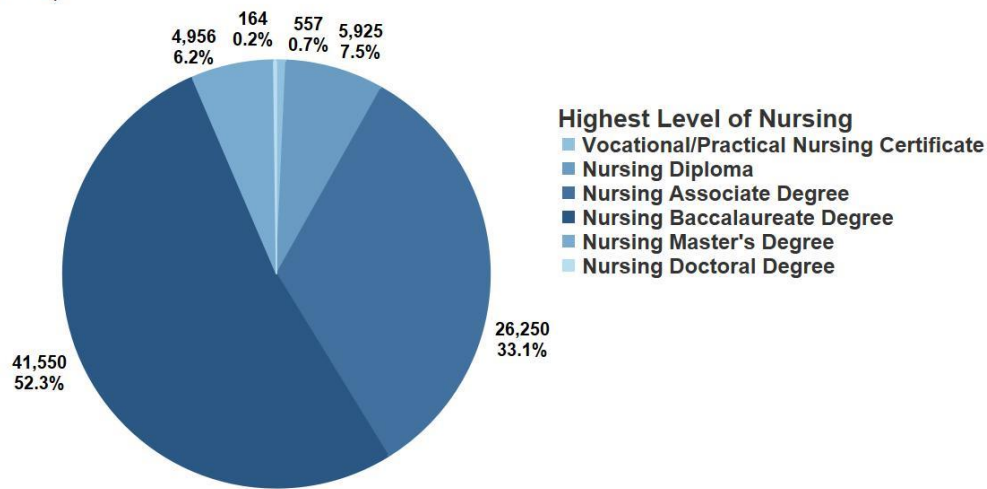
- More than half of actively employed RNs (52.3% or 41,550) report a Nursing Baccalaureate Degree as their highest level of nursing education.
- An additional one-third (33.1% or 26,250) hold a Nursing Associates Degree.

Highest Level of Nursing Education of APRNs, 2020, (n=9,393)
Does not include RNs who did not report their highest level of nursing education (n=16) or who selected other degree (n=9).

Highest Level of Nursing Education
- Certificate Holder
- Nursing Masters Degree
- Nursing Doctoral Degree
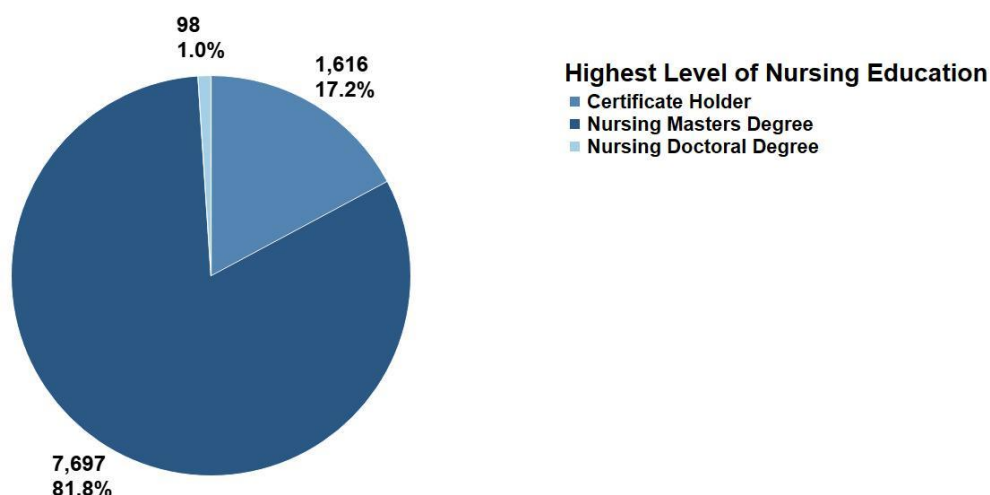
- The large majority of APRNs (81.8% or 7,679) hold a Nursing Masters Degree as their highest level of nursing education, which is the current requirement for initial APRN recognition in Missouri.
- A small percentage of APRNs are Certificate Holders (17.2% or 1,616). They are comprised of two groups:
    - APRNs who received recognition before new educational requirements were in place and are grandfathered in, or
    - APRNs whose initial recognition was received in another state and later applied for Missouri recognition.
- A small number of APRNs (1.0% or 98) hold a Nursing Doctoral Degree as their highest level of nursing education.

Employment Status

Employment status consists of whether nurses are working part-time, full-time or as a per diem employee; the number of nursing positions held; the number of hours they are working as a nurse; as well as their position description.

Employment Status of LPNs, RNs, and APRNs in Missouri, 2020, (n=108,442)

LPN (n=17,525)
- 5.8% 1,023
- 3.7% 643
- 8.9% 1,557
- 81.6% 14,302

RN (n=81,334)
- 5.3% 4,307
- 3.5% 2,813
- 10.7% 8,667
- 80.6% 65,547

APRN (n=9,583)
- 4.4% 426
- 2.1% 197
- 11.5% 1,100
- 82.0% 7,860
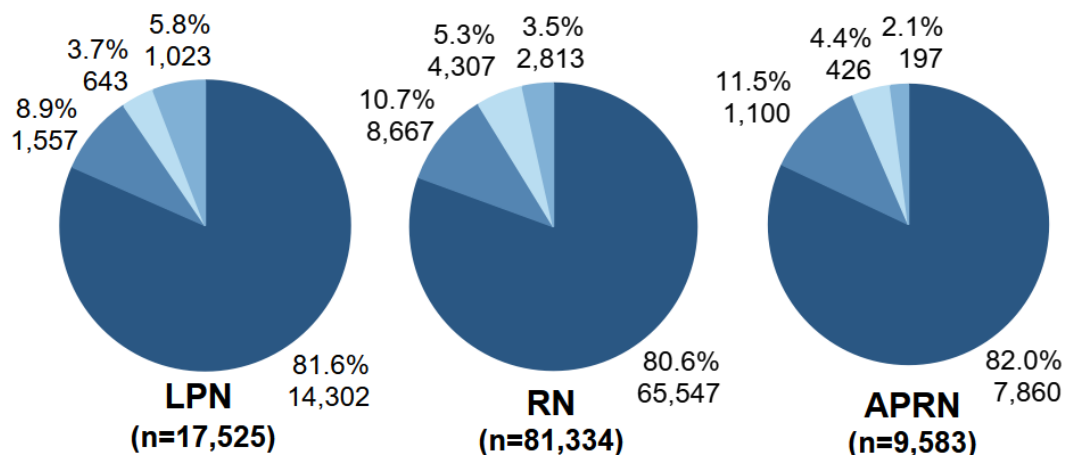
Current Employment Status
- ■ Actively employed in nursing or in a position that requires a nurse license - Full-time
- ■ Actively employed in nursing or in a position that requires a nurse license - Part-time
- ■ Actively employed in nursing or in a position that requires a nurse license - Per diem
- ■ Report being unemployed - Looking for work as a nurse

- The vast majority of Missouri nurses are actively employed full-time in nursing or a position that requires a nursing license, including:
  - o 81.6% or 14,302 LPNs,
  - o 80.6% or 65,547 RNs, and
  - o 82.0% or 7,860 APRNs.
- There are very few RNs and APRNs who report that they are unemployed and looking for work as a nurse (3.5% of RNs and 2.1% of APRNs), indicating that there is a limited supply of RNs and APRNs within the state available to meet the current need.
- A slightly higher percentage of LPNs, 5.8%, report being unemployed and looking for work as a nurse.
- The maps below indicate the county of residence for nurses who report being unemployed and looking for work as a nurse.

County of Residence for Nurses Who Report Being Unemployed and Looking for Work as a Nurse

All Nurses per 10,000

0 - 3   4 - 5   6   7 - 8   9 - 19

LPNs per 10,000

0 - 1   2   3   4 - 5   6 - 9

RNs per 10,000

0 - 1   2 - 3   4   5 - 7   8 - 13

APRNs per 10,000

0.00   0.01 - 0.25   0.26 - 0.44   0.45 - 0.85   0.86 - 1.27

▨ Metropolitan   ▤ Micropolitan   Rural
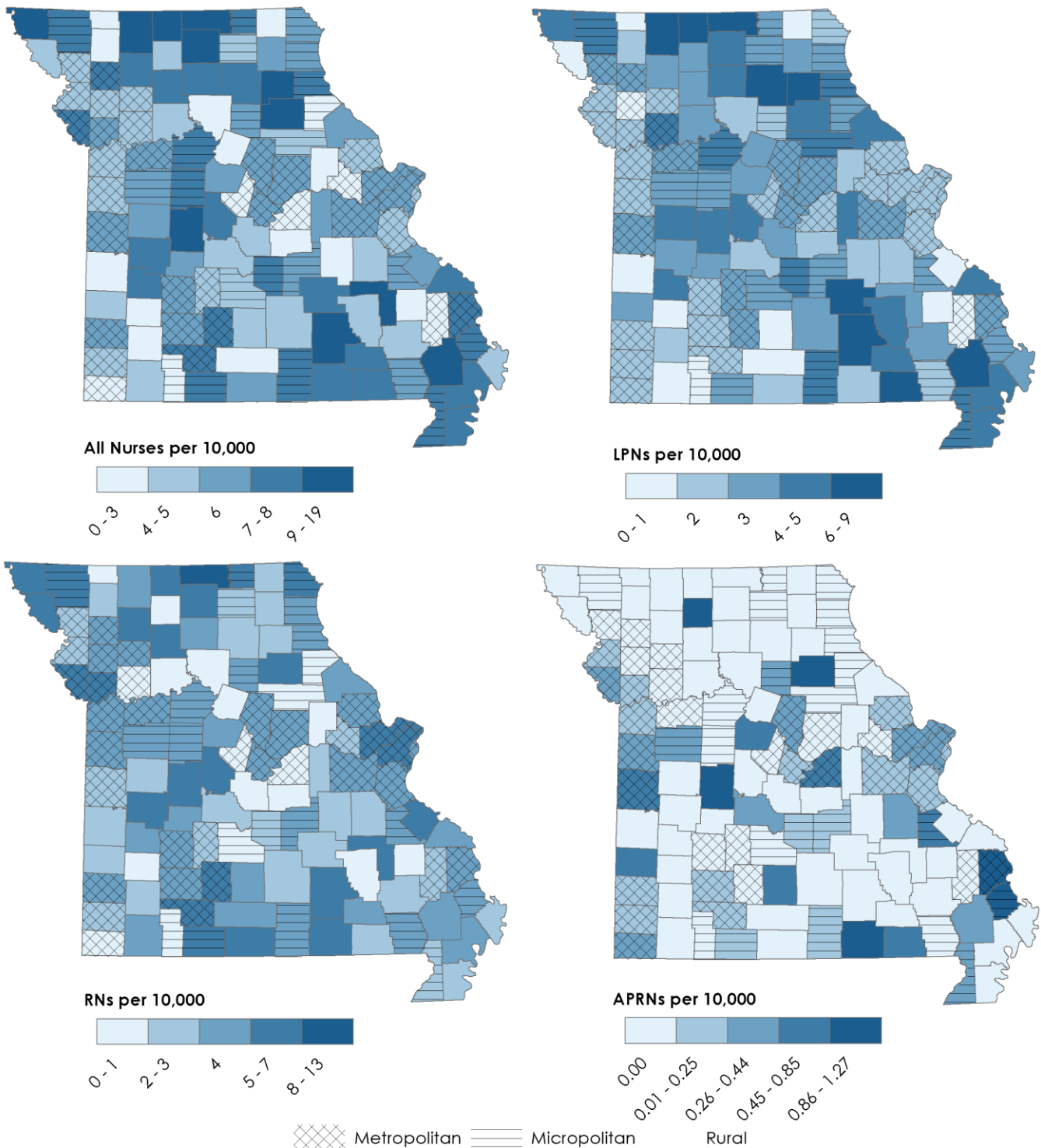
Source: Nursys, 1/1/2018-6/22/2020
Created by: Center for Health Policy, University of Missouri

How Many Positions LPNs, RNs, and APRNs Are Currently Employed as a Nurse, 2020, (n=104,409)

Does not include nurses who did not report in how many positions they are currently employed as a nurse (n=1,136); (n=154) LPNs; (n=950) RNs; (n=32) APRNs.

	LPN (n=16,502)	RN (n=78,521)	APRN (n=9,386)
One	14,460 — 87.6%	70,897 — 90.3%	7,681 — 81.8%
Two	1,863 — 11.3%	6,853 — 8.7%	1,353 — 14.4%
Three	179 — 1.1%	771 — 1.0%	352 — 3.8%
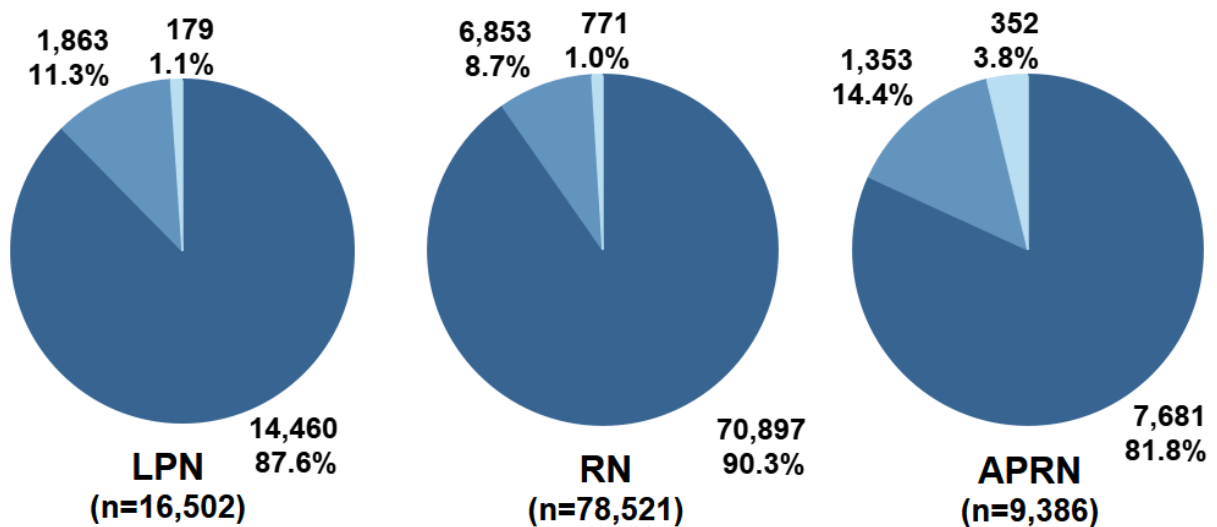
How Many Positions Currently Employed As a Nurse

- One
- Two
- Three

- The vast majority of nurses of all license types hold one position, including 87.6% or 14,460 LPNs; 90.3% or 70,897 RNs and 81.8% or 7,681 APRNs.
- APRNs are most likely to hold multiple nursing positions, with 18.2% or 1,705 holding two or three positions.

LPNs, RNs, and APRNs Average Hours Per Week Working as a Nurse, 2020, (n=104,408)

Does not include nurses who did not report their average hours per week working as a nurse (n=1,137); (n=154) LPNs; (n=951) RNs; (n=32) APRNs.

Average Hours Per Week Working as a Nurse
- 0-35
- 36-40
- 41+
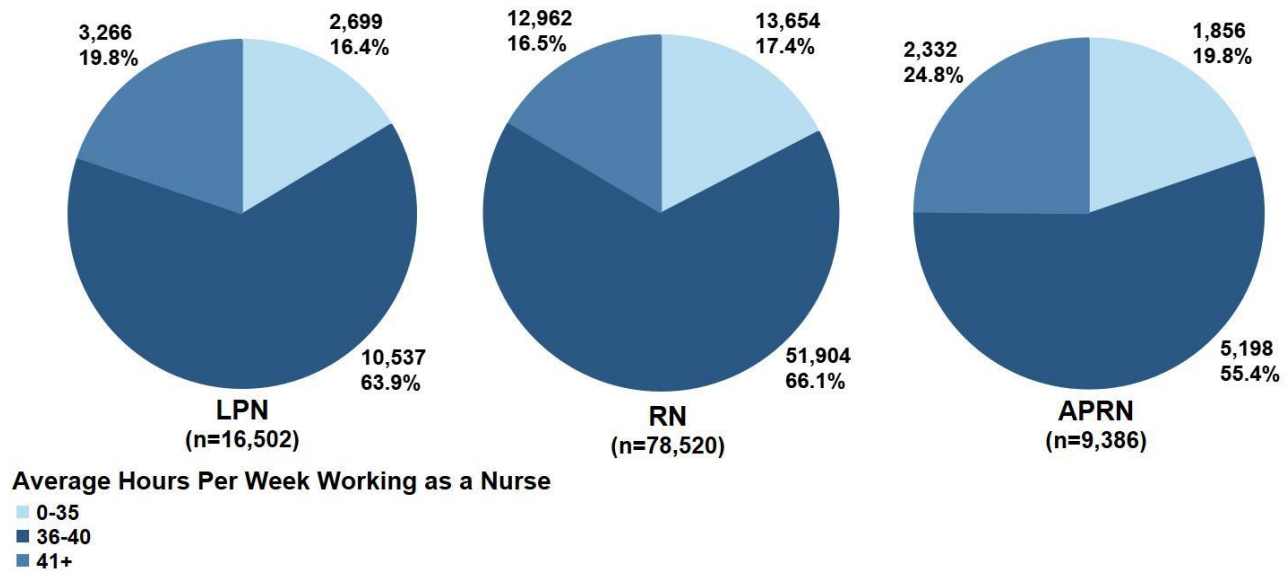
- The proportion of nurses working 0-35 hours, 36-40 and 41 or more hours is relatively stable across license types, with most nurses in all license types working the equivalent of a full-time nursing job between 36-40 hours per week.
  - RNs have the highest proportion of nurses working 36-40 hours per week, including 66.1% or 51,904.
  - LPNs have 63.9% or 10,537 working 36-40 hours per week, while APRNs have 55.4% or 5,198 in this category.
- APRNs are the license type most likely to work more than traditional full-time hours, with roughly a quarter (24.8% or 2,332) working 41 or more hours per week.

Position Description of LPNs, RNs, and APRNs, 2020, (n=103,005)
Does not include nurses who did not report their position description (n=2,540).

License Type: ▪ LPN ▪ RN ▪ APRN

Position	LPN	RN	APRN
Advanced Practice Nurse			100.0%
Case Manager	3.9%	95.5%	0.6%
Clinical Nurse Leader	4.0%	96.0%	0.0%
Nurse Executive	5.5%	91.0%	3.5%
Nurse Faculty	9.9%	83.2%	6.9%
Nurse Manager	15.3%	83.7%	1.0%
Nurse Researcher	4.3%	92.3%	3.3%
Nursing Consultant	4.7%	93.5%	1.9%
Staff Nurse	18.8%	79.8%	1.4%
Other - Health Related	22.8%	74.6%	2.6%
Other - Not Health Related	22.6%	76.4%	1.0%
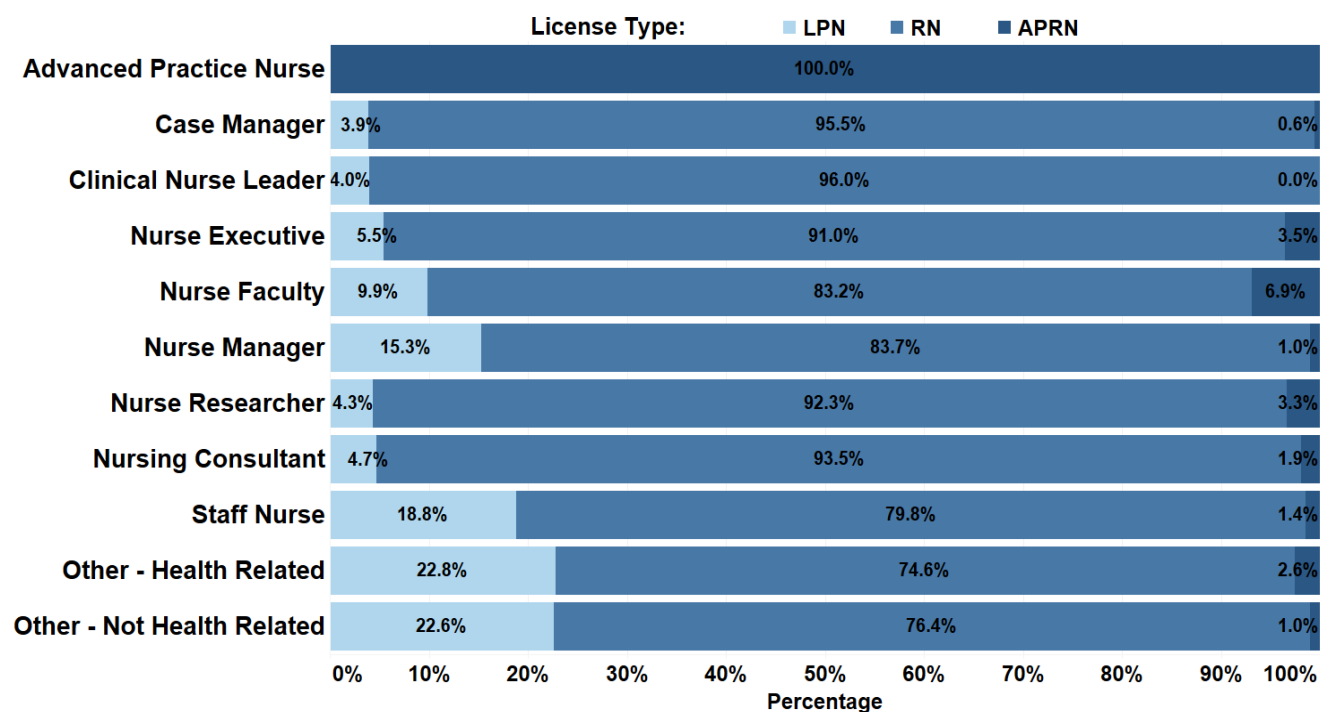
- With the exception of Advanced Practice Nurse, the majority of nurses in each of the position descriptions are RNs.
- Over one-fifth of nurses who selected "Other – Health Related" (22.8%) and "Other – Not Health Related" (22.6%) are LPNs.

Position Description of LPNs, 2020, (n=16,303)

Does not include LPNs who did not report their position description (n=353).

Position	Number of LPNs
Case Manager	244
Clinical Nurse Leader	1
Nurse Executive	98
Nurse Faculty	252
Nurse Manager	1,150
Nurse Researcher	21
Nursing Consultant	50
Staff Nurse	12,673
Other - Health Related	1,640
Other - Not Health Related	92

Number of LPNs
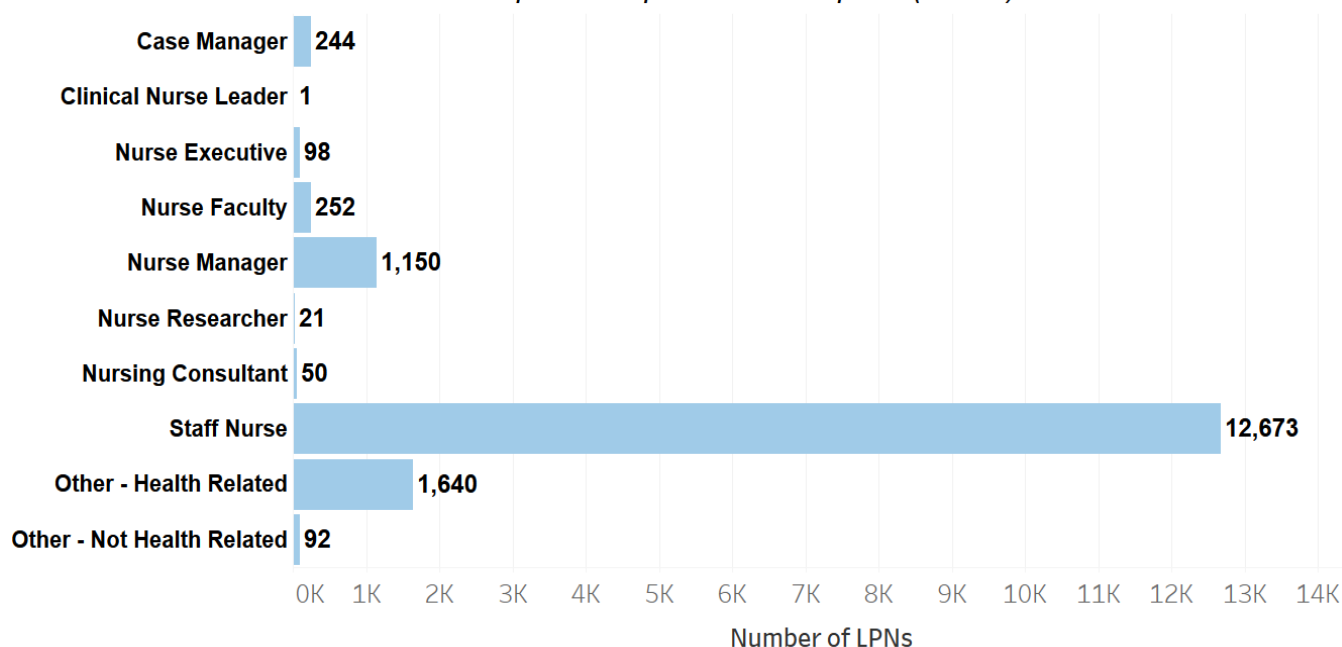
- Over three-quarters of LPNs who reported their position description are Staff Nurses (77.7% or 12,673).
- Other-Health Related (10.1% or 1,640) and Nurse Manager (7.1% or 1,150) are other common position descriptions for LPNs.

Position Description of RNs, 2020, (n=77,353)

Does not include RNs who did not report their position description (n=2,118).

Position	Number of RNs
Case Manager	5,956
Clinical Nurse Leader	24
Nurse Executive	1,637
Nurse Faculty	2,118
Nurse Manager	6,300
Nurse Researcher	446
Nursing Consultant	1,001
Staff Nurse	53,815
Other - Health Related	5,361
Other - Not Health Related	311
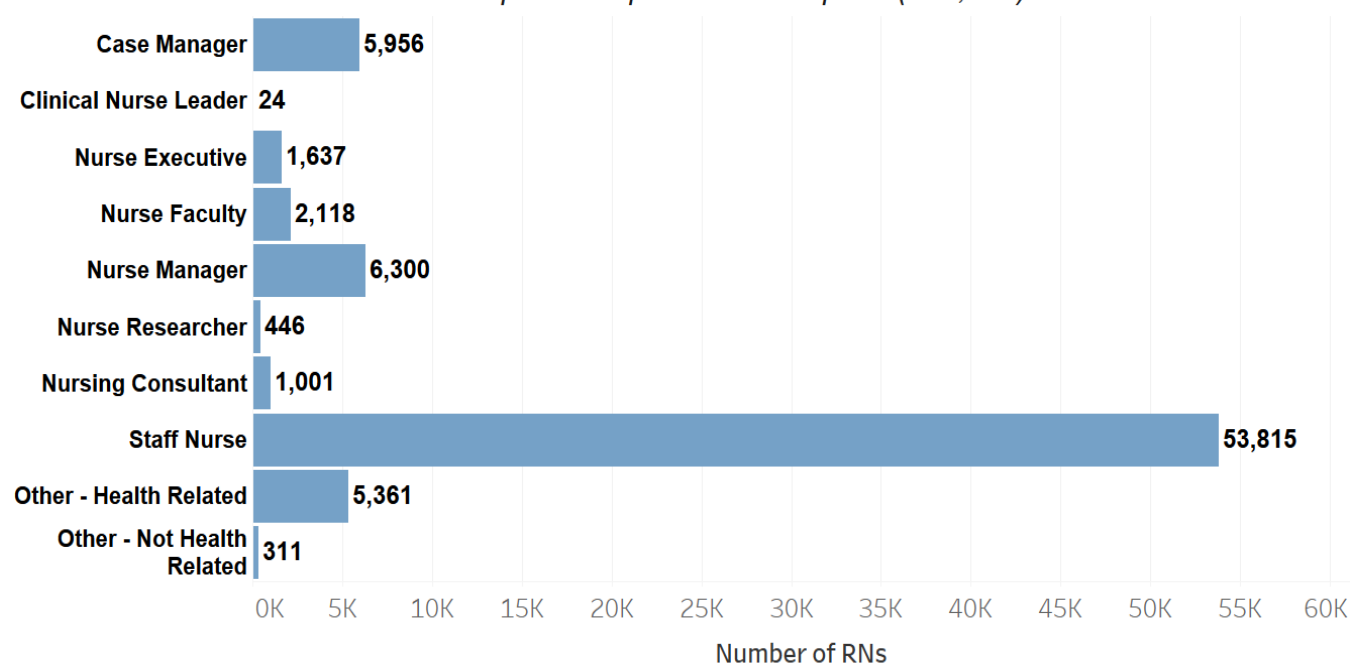
- Like LPNs, Staff Nurse is the most common reported position description for RNs, with over two-thirds of RNs in that category (69.6% or 53,815).
- There are three additional position descriptions with sizeable numbers of RNs, including Nurse Manager (8.1% or 6,300), Case Manager (7.7% or 5,956) and Other-Health Related (6.9% or 5,361).

Position Description of APRNs, 2020, (n=9,349)

Does not include APRNs who did not report their position description (n=69).

Position	Number of APRNs
Advanced Practice Nurse	7,809
Case Manager	36
Clinical Nurse Leader	0
Nurse Executive	63
Nurse Faculty	176
Nurse Manager	74
Nurse Researcher	16
Nursing Consultant	20
Other - Health Related	185
Other - Not Health Related	4
Staff Nurse	966

Number of APRNs
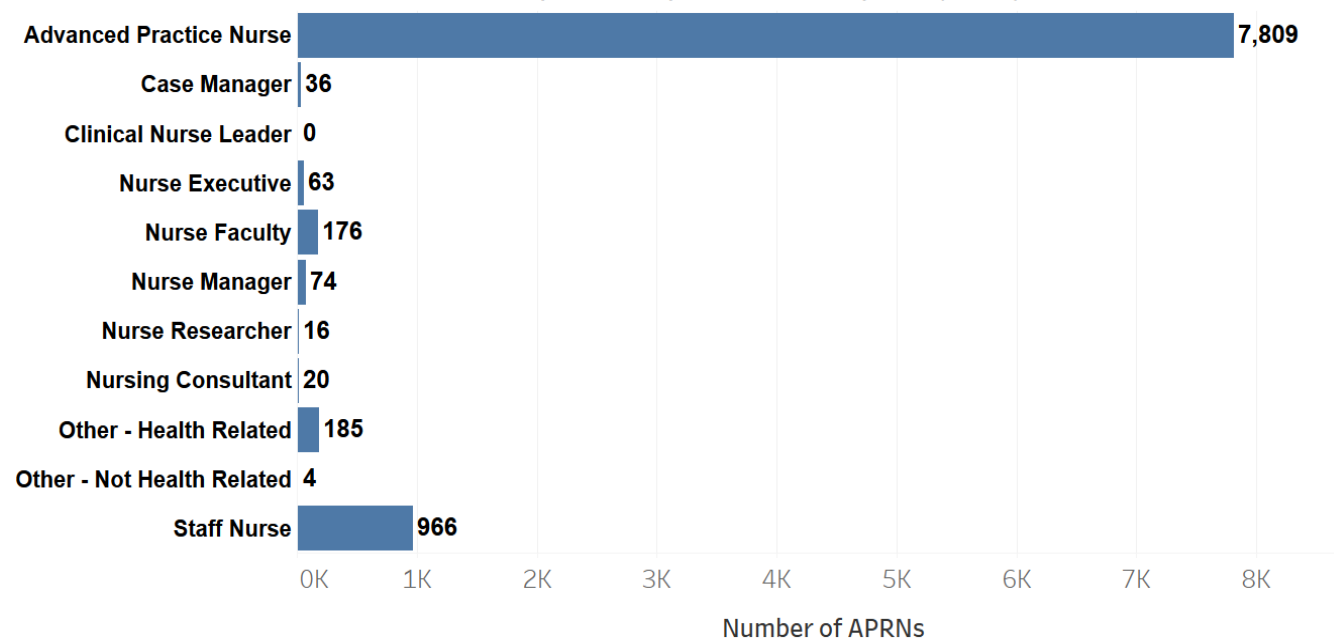
- Over 80% of APRNs (83.5% or 7,809) have a position description of Advanced Practice Nurse.
- The next most common position description is Staff Nurse with 10.3% or 966.

Employment Setting

Employment setting includes the range of places where nurses practice, including inpatient care, outpatient care, institutional care and administration, education and other functions. RNs comprise the largest group of nurses in all employment settings, except the category which includes nursing homes, extended care and assisted living facilities where LPNs comprise the majority of the workforce.

Percentage of LPNs, RNs, APRNs in Each Employment Setting, 2020, (n=104,075)

Does not include nurses who did not report their position description (n=1,470).

Employment Setting		License Type: LPN	RN	APRN
Inpatient Care- Open to the Public	Hospital	3.1%	89.0%	7.9%
	Nursing Home/Extended Care/Assisted Living	60.7%	37.1%	2.1%
Outpatient Care- Open to the Public	Ambulatory Care/Physician's Office/Primary Care	13.3%	62.9%	23.8%
	Community Health	30.4%	54.2%	15.4%
	Dialysis Center	5.8%	92.3%	1.9%
	Home Health	37.2%	60.6%	2.2%
	Palliative Care/Hospice	16.3%	80.8%	2.8%
Institutional Care- Specified Populations	Correctional Facility	41.8%	53.7%	4.5%
	School Health Service	20.9%	77.4%	1.8%
Administration, Education, Other	Insurance Claims/Benefits	5.1%	93.8%	1.1%
	Occupational Health	17.5%	72.4%	10.1%
	Public Health	27.2%	66.8%	6.0%
	School of Nursing	2.6%	82.0%	15.4%
	Other	21.6%	64.7%	13.7%

- RNs comprise the largest group of nurses in every employment setting, except the category which includes nursing homes, extended care, and assisted living facilities; LPNs comprise the majority of nurses in this category (60.7% or 6,222).
- LPNs provide over 30% of the nursing workforce in correctional facilities (41.8% or 374), home health (37.2% or 1,833) and community health (30.4% or 628).
- APRNs have their highest proportion employment setting in ambulatory care, physician's offices and primary care (23.8% or 1,880).

Number of LPNs in Each Employment Setting, 2020, (n=16,449)

Does not include LPNs who did not report their position description (n=207).

Employment Setting

Category	Setting	Number of LPNs
Inpatient Care- Open to the Public	Hospital	1,573
	Nursing Home/Extended Care/Assisted Living	6,222
Outpatient Care- Open to the Public	Ambulatory Care/Physician's Office/Primary Care	1,053
	Community Health	628
	Dialysis Center	62
	Home Health	1,833
	Palliative Care/Hospice	226
Institutional Care- Specified Populations	Correctional Facility	374
	School Health Service	491
Administration, Education, Other	Insurance Claims/Benefits	125
	Occupational Health	87
	Public Health	285
	School of Nursing	49
	Other	3,441

Number of LPNs

- Over one-third of LPNs (37.8% or 6,222) are working in nursing homes, extended care or assisted living facilities.
- The next largest group (20.9% or 3,441) listed "Other" as their employment setting, offering little information about their actual work setting. According to the Missouri Board of Nursing, common employment settings that comprise "Other" include private duty, camp, dental office, chiropracter office, government, rehabilitation programs or legal settings.
- Another substantial portion of LPNs (11.1% or 1,833) work in home health.

Number of RNs in Each Employment Setting, 2020, (n=78,282)

Does not include RNs who did not report their position description (n=1,189).

Employment Setting		Number of RNs
Inpatient Care- Open to the Public	Hospital	45,807
	Nursing Home/Extended Care/Assisted Living	3,804
Outpatient Care- Open to the Public	Ambulatory Care/Physician's Office/Primary Care	4,965
	Community Health	1,118
	Dialysis Center	978
	Home Health	2,987
	Palliative Care/Hospice	1,118
Institutional Care- Specified Populations	Correctional Facility	480
	School Health Service	1,821
Administration, Education, Other	Insurance Claims/Benefits	2,288
	Occupational Health	359
	Public Health	699
	School of Nursing	1,576
	Other	10,282

- Over half of the RNs reporting their employment setting (58.5% or 45,807) work in hospitals.
- Little information is available for RNs who answer "other," though they comprise a significant portion of the RN workforce (13.1% or 10,282).
  - According to the Missouri Board of Nursing, common employment settings that comprise "Other" include private duty, camp, dental office, chiropracter office, government, rehabilitation programs or legal settings.

Number of APRNs in Each Employment Setting, 2020, (n=9,344)

Does not include APRNs who did not report their position description (n=74).

Employment Setting		Number of APRNs
Inpatient Care- Open to the Public	Hospital	4,073
	Nursing Home/Extended Care/Assisted Living	216
Outpatient Care- Open to the Public	Ambulatory Care/Physician's Office/Primary Care	1,880
	Community Health	318
	Dialysis Center	20
	Home Health	108
	Palliative Care/Hospice	39
Institutional Care- Specified Populations	Correctional Facility	40
	School Health Service	42
Administration, Education, Other	Insurance Claims/Benefits	26
	Occupational Health	50
	Public Health	63
	School of Nursing	296
	Other	2,173

- APRNs most often work in hospitals, including 43.6% or 4,073 APRNs in this setting.
- "Other" is the next highest category with nearly a quarter of APRNs (23.3% or 2,173). Unfortunately, very little information exists about their specific setting.
  - According to the Missouri Board of Nursing, common employment settings that comprise "Other" include private duty, camp, dental office, chiropracter office, government, rehabilitation programs or legal settings.
- Another important employment setting for APRNs is ambulatory care, including physician's offices or primary care facilities, with 20.1% or 1,880.

Employment Specialty

Employment specialty indicates the focus of a nurse's practice in their primary nursing position. Nursing specialities in the Nursys® survey include a wide variety of clinical specialties like gerontology and pediatrics/neonatal, as well as practice settings like acute or critical care. The most common specialties include geriatrics or gerontology for LPNs, acute or critical care for RNs and primary care or adult and family health for APRNs.

Employment Specialty of LPNs, RNs, APRNs That Most Closely Corresponds to Their Primary Nursing Position, 2020, (n=94,905)

Does not include nurses who did not report employment specialty that most closely corresponds to their primary nursing position (n=10,640). No nurses reported a urologic specialty.

License Type: ■ LPN ■ RN ■ APRN

Specialty	LPN	RN	APRN
Acute Care/Critical Care	3.4%	90.2%	6.4%
Adult Health/Family Health/Primary Care	30.0%	46.4%	23.6%
Anesthesia	0.1%	13.9%	85.9%
Cardiology	3.9%	88.5%	7.6%
Community	21.1%	75.0%	3.9%
Emergency/Trauma	1.7%	89.6%	8.8%
Genetics	0.0%	100.0%	0.0%
Geriatric/Gerontology	56.1%	41.2%	2.7%
Home Health	32.1%	66.8%	1.1%
Informatics/Information Technology	0.0%	100.0%	0.0%
Maternal - Child Health/Obstetrics	3.1%	92.8%	4.0%
Medical Surgical	6.1%	91.7%	2.2%
Neonatal	0.2%	89.2%	10.5%
Nephrology	6.3%	88.9%	4.8%
Neurology/Neurological	0.0%	100.0%	0.0%
Occupational Health	13.5%	78.5%	8.0%
Oncology	2.7%	89.7%	7.7%
Orthopedic	0.0%	100.0%	0.0%
Palliative Care/Hospice	15.9%	78.4%	5.6%
Pediatrics/Neonatal	15.6%	73.1%	11.3%
Perioperative	0.6%	97.6%	1.8%
Psychiatric/Mental Health/Substance Abuse	20.1%	72.6%	7.3%
Public Health	20.9%	77.0%	2.2%
Radiology	0.0%	100.0%	0.0%
Rehabilitation	28.2%	69.4%	2.4%
School Health	21.3%	77.7%	1.0%
Urologic			
Women's Health	15.2%	66.1%	18.7%
Other - Clinical Specialties	14.2%	76.0%	9.8%
Other - Non Clinical Specialties	9.8%	87.7%	2.5%
Other	0.0%	100.0%	0.0%

Percentage: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

- With few excpeptions (noted below), RNs comprise the majority of nurses in nursing specialties.
- The category which includes adult health, family health, and primary care includes substantial numbers of LPNs (30.0% or 1,811), RNs (46.4% or 2,800), and APRNs (23.6% or 1,426).
- The majority of nurses specializing in geriatrics or gerontology are LPNs (56.1% or 5,201) and the majority specializing in anesthesia are APRNs (85.9% or 1,534).

Employment Specialty of LPNs That Most Closely Corresponds to Their Primary Nursing Position, 2020, (n=14,789)

Does not include LPNs who did not report employment specialty that most closely corresponds to their primary nursing position (n=1,867).

Specialty	Number of LPNs
Acute Care/Critical Care	(bar, no label)
Adult Health/Family Health/Primary Care	1,811
Anesthesia	2
Cardiology	187
Community	262
Emergency/Trauma	93
Genetics	0
Geriatric/Gerontology	5,201
Home Health	1,281
Informatics/Information Technology	0
Maternal - Child Health/Obstetrics	106
Medical Surgical	534
Neonatal	5
Nephrology	75
Neurology/Neurological	0
Occupational Health	100
Oncology	75
Orthopedic	0
Palliative Care/Hospice	249
Pediatrics/Neonatal	986
Perioperative	26
Psychiatric/Mental Health/Substance Abuse	878
Public Health	193
Radiology	0
Rehabilitation	532
School Health	421
Urologic	0
Women's Health	245
Other	0
Other - Clinical Specialties	959
Other - Non Clinical Specialties	182

Number of LPNs

- The largest number of LPNs specialize in geriatric/gerontology (35.2% or 5,201), which corresponds with their largest employment setting in nursing homes, extended care and assisted living facilities.
- Other prevalent specialties among LPNs include adult health, family health, and primary care (12.2% or 1,811), and home health (8.7% or 1,281).

Employment Specialty of RNs That Most Closely Corresponds to Their Primary Nursing Position, 2020, (n=72,062)

Does not include RNs who did not report employment specialty that most closely corresponds to their primary nursing position (n=7,409).

Specialty	Number of RNs
Acute Care/Critical Care	10,106
Adult Health/Family Health/Primary Care	2,800
Anesthesia	249
Cardiology	4,231
Community	929
Emergency/Trauma	5,015
Genetics	1
Geriatric/Gerontology	3,818
Home Health	2,669
Informatics/Information Technology	6
Maternal - Child Health/Obstetrics	3,154
Medical Surgical	7,977
Neonatal	2,016
Nephrology	1,058
Neurology/Neurological	11
Occupational Health	582
Oncology	2,522
Orthopedic	9
Palliative Care/Hospice	1,225
Pediatrics/Neonatal	4,613
Perioperative	4,452
Psychiatric/Mental Health/Substance Abuse	3,163
Public Health	712
Radiology	2
Rehabilitation	1,308
School Health	1,536
Urologic	0
Women's Health	1,068
Other - Clinical Specialties	5,128
Other - Non Clinical Specialties	1,628
Other	74

Number of RNs

- The largest number of RNs specialize in acute or critical care (14.0% or 10,106), which corresponds with their largest employment setting in hospitals.
- The second most commonly-held specialty for RNs is medical surgical (11.1% or 7,977).

Employment Specialty of APRNs That Most Closely Corresponds to Their Primary Nursing Position, 2020, (n=8,054)

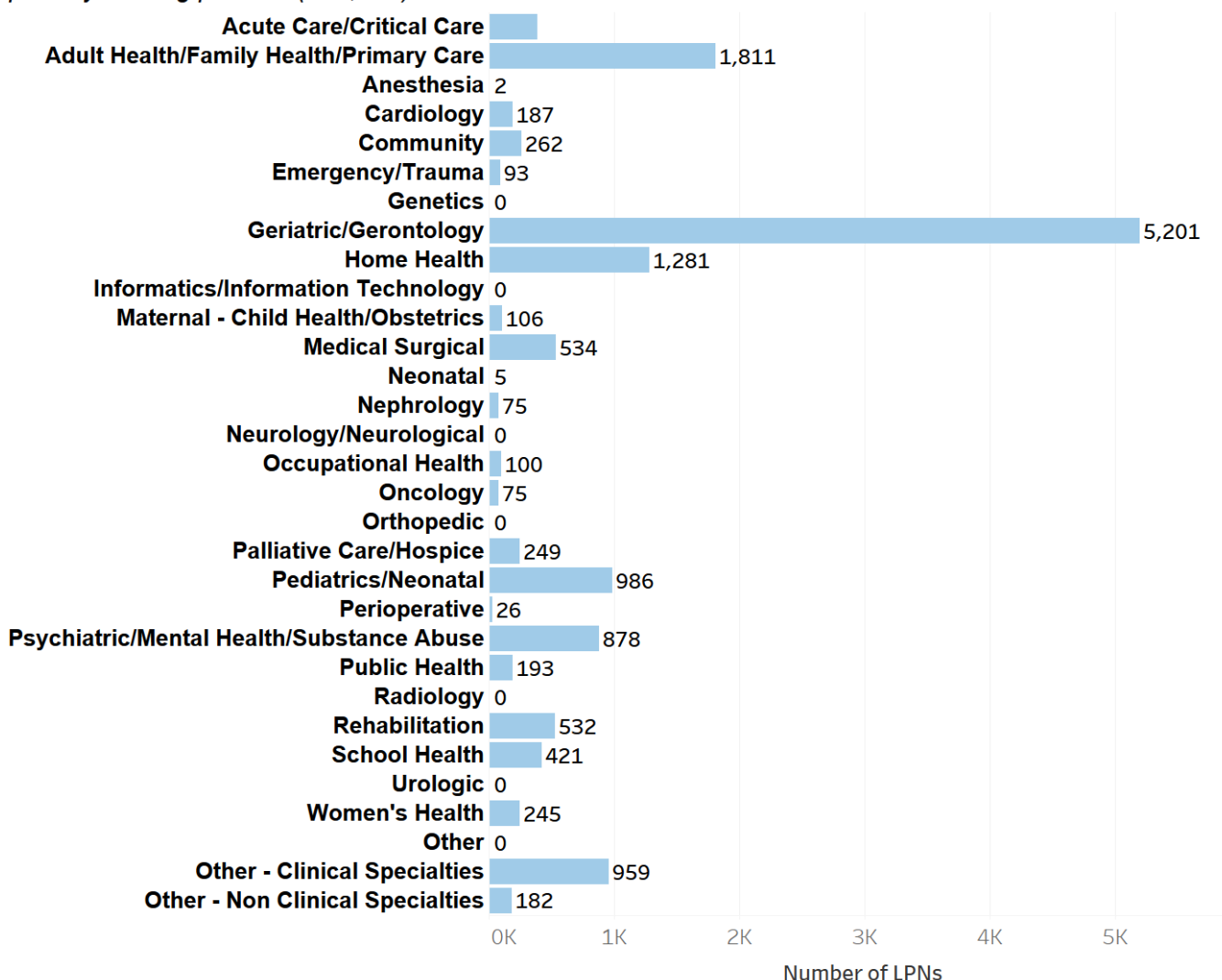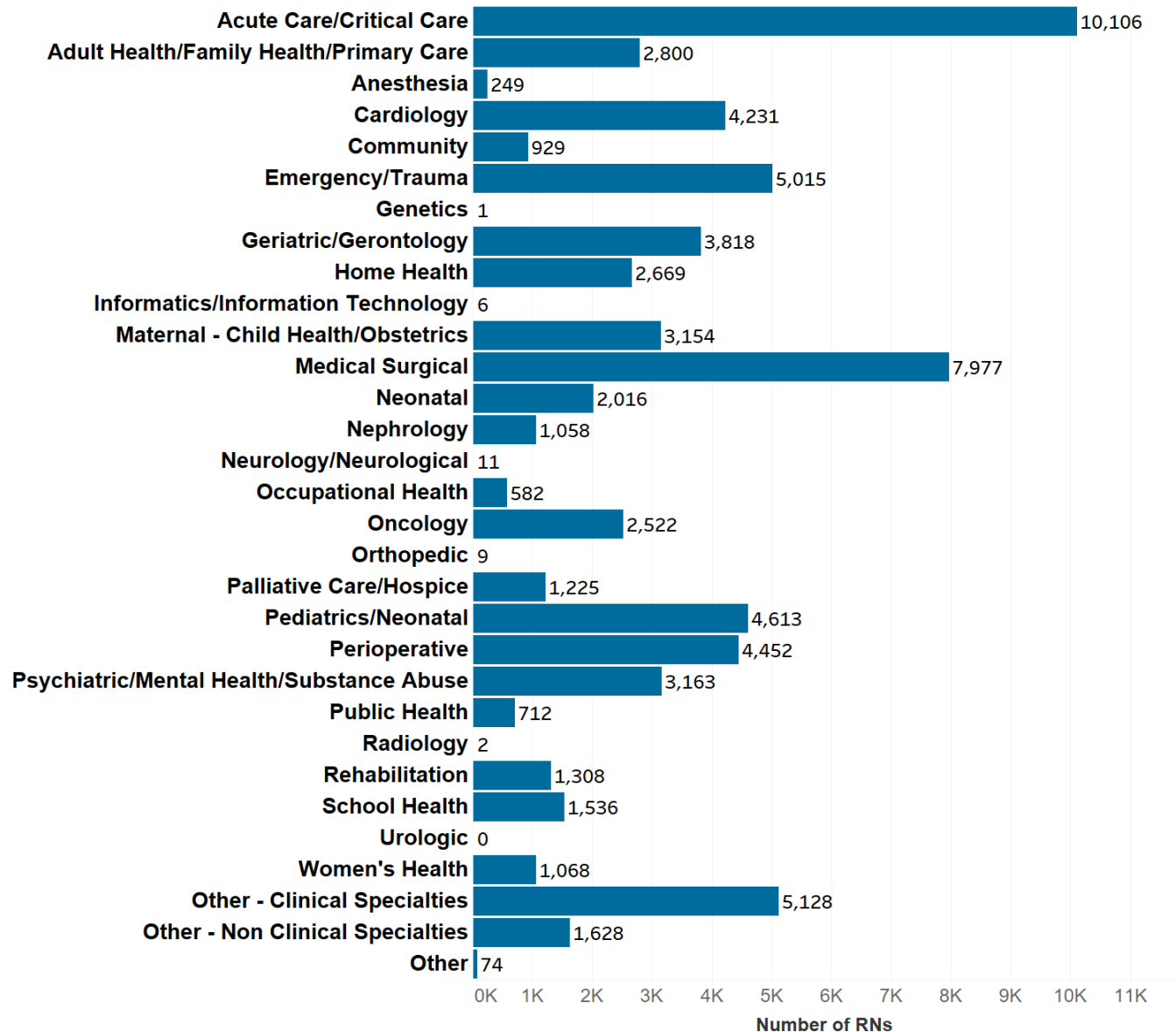*Does not include APRNs who did not report employment specialty that most closely corresponds to their primary nursing position (n=1,364)*

Specialty	Number of APRNs
Acute Care/Critical Care	712
Adult Health/Family Health/Primary Care	1,426
Anesthesia	1,534
Cardiology	365
Community	48
Emergency/Trauma	490
Genetics	0
Geriatric/Gerontology	251
Home Health	43
Informatics/Information Technology	0
Maternal - Child Health/Obstetrics	137
Medical Surgical	188
Neonatal	238
Nephrology	57
Neurology/Neurological	0
Occupational Health	59
Oncology	216
Orthopedic	0
Palliative Care/Hospice	88
Pediatrics/Neonatal	710
Perioperative	82
Psychiatric/Mental Health/Substance Abuse	317
Public Health	20
Radiology	0
Rehabilitation	46
School Health	20
Urologic	0
Women's Health	302
Other	0
Other - Clinical Specialties	659
Other - Non Clinical Specialties	46

Number of APRNs

- Almost 40% of APRNs fall into one of two specialites, anesthesia (19.0% or 1,534) or adult health, family health or primary care (17.7% or 1,426).

Next Steps

The Missouri Division of Professional Registration Board of Nursing and the University of Missouri will continue to collaborate on providing information on the nursing workforce in Missouri. In 2019, RNs and APRNs were required to enroll in Nursys®, and LPNs joined them in 2020, making the *2020 Missouri Nursing Workforce Report* the most comprehensive analysis of Missouri's nursing workforce to date.

Additional analysis is planned on APRN scope of practice regulation, as well as commuting patterns for each nurse license type.

The Missouri Nursing Workforce Report is part of a larger collaboration on the healthcare workforce in Missouri. In 2018, the first annual *Missouri Nursing Workforce Report* was completed, and 2019 brought completion of the first annual physician workforce report. In 2020, physical therapists and physical therapist assistants were surveyed for the first time, and their first annual report was published.

Next steps include doing similar analysis for additional health care providers, such as psychologists, physician assistants, anesthesiology assistants, athletic trainers in 2021. Additional health care professions will be added in future years, and a special emphasis will be placed on providing information on Missouri's behavioral and mental health providers.

Data, charts and graphics included in this report will be available through the Missouri healthcare workforce web application, which houses data on a wide variety of healthcare professions: http://apps.oseda.missouri.edu/HCWF/Home.aspx.

Appendix 1: Number and Rate of Nurses by Geography

Number and Rate Per 10,000 of Nurses in Metropolitan Counties by County of Employment and Nurse Type

County of Employment	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Metropolitan Total	10,125	21.9	55,686	120.2	6,387	13.8	72,198	155.84
Andrew	25	14.1	33	18.6	2	1.1	60	33.9
Bates	54	33.4	106	65.5	7	4.3	167	103.3
Bollinger	15	12.4	21	17.3	2	1.6	38	31.3
Boone	702	38.9	2,553	141.5	260	14.4	3,515	194.8
Buchanan	424	48.5	1,172	134.2	121	13.9	1,717	196.5
Caldwell	19	21.1	28	31.0	2	2.2	49	54.3
Callaway	85	19.0	173	38.7	11	2.5	269	60.1
Cape Girardeau	343	43.5	1,427	180.9	221	28.0	1,991	252.4
Cass	213	20.1	415	39.2	41	3.9	669	63.2
Christian	110	12.4	260	29.3	42	4.7	412	46.5
Clay	447	17.9	2,553	102.1	232	9.3	3,232	129.3
Clinton	117	57.4	203	99.6	17	8.3	337	165.3
Cole	336	43.8	929	121.1	101	13.2	1,366	178.0
Dallas	26	15.4	31	18.4	2	1.2	59	35.0
DeKalb	10	8.0	11	8.8	1	0.8	22	17.5
Franklin	255	24.5	769	74.0	95	9.1	1,119	107.6
Greene	883	30.1	4,796	163.6	482	16.4	6,161	210.2
Howard	12	12.0	44	44.0	5	5.0	61	61.0
Jackson	1,463	20.8	10,149	144.4	1,271	18.1	12,883	183.3
Jasper	356	29.3	1,697	139.9	211	17.4	2,264	186.6
Jefferson	212	9.4	852	37.9	102	4.5	1,166	51.8
Lafayette	122	37.3	122	37.3	16	4.9	260	79.5
Lincoln	67	11.4	157	26.6	25	4.2	249	42.2
McDonald	18	7.9	19	8.3	6	2.6	43	18.8
Moniteau	30	18.6	40	24.8	1	0.6	71	44.0
Newton	39	6.7	130	22.3	20	3.4	189	32.5
Osage	22	16.2	20	14.7	2	1.5	44	32.3
Platte	172	16.5	538	51.5	51	4.9	761	72.9
Polk	107	33.3	344	107.0	46	14.3	497	154.6
Ray	64	27.8	84	36.5	4	1.7	152	66.0
St. Charles	512	12.7	2,800	69.6	301	7.5	3,613	89.9
St. Louis	2,192	22.0	14,784	148.7	1,561	15.7	18,537	186.5
St. Louis City	562	18.7	8,183	272.2	1,097	36.5	9,842	327.4
Warren	34	9.5	55	15.4	6	1.7	95	26.6
Washington	33	13.3	96	38.8	12	4.9	141	57.0
Webster	44	11.1	92	23.2	11	2.8	147	37.1

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[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding.

Number and Rate Per 10,000 of Nurses in Micropolitan Counties by County of Employment and Nurse Type

County of Employment	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Micropolitan Total	2,714	38.0	5,092	71.2	630	8.8	8,436	118.0
Adair	140	55.2	217	85.6	23	9.1	380	149.9
Audrain	116	45.7	160	63.0	14	5.5	290	114.2
Butler	228	53.7	581	136.8	85	20.0	894	210.5
Clark	11	16.2	19	28.0	1	1.5	31	45.6
Dunklin	124	42.6	101	34.7	19	6.5	244	83.8
Howell	212	52.8	406	101.2	50	12.5	668	166.5
Johnson	138	25.5	264	48.8	29	5.4	431	79.7
Laclede	75	21.0	181	50.7	23	6.4	279	78.1
Lewis	20	20.5	25	25.6	2	2.0	47	48.1
Marion	238	83.4	360	126.2	39	13.7	637	223.3
Nodaway	93	42.1	140	63.4	16	7.2	249	112.7
Pettis	176	41.6	295	69.7	27	6.4	498	117.6
Phelps	223	50.0	454	101.9	66	14.8	743	166.7
Pulaski	140	26.6	191	36.3	35	6.7	366	69.6
Ralls	13	12.6	11	10.7	1	1.0	25	24.3
Randolph	80	32.3	176	71.1	17	6.9	273	110.3
St. Francois	217	32.3	627	93.3	73	10.9	917	136.4
Saline	128	56.2	143	62.8	24	10.5	295	129.6
Schuyler	8	17.2	10	21.5	1	2.1	19	40.8
Scott	206	53.8	344	89.9	46	12.0	596	155.7
Stone	24	7.5	31	9.7	8	2.5	63	19.7
Taney	104	18.6	356	63.7	31	5.5	491	87.8

Number and Rate Per 10,000 of Nurses in Rural Counties by County of Employment and Nurse Type

County of Employment	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Rural Total	2,111	26.7	3,540	44.8	429	5.4	6,080	77.0
Atchison	27	52.5	30	58.3	6	11.7	63	122.5
Barry	48	13.4	173	48.3	21	5.9	242	67.6
Barton	18	15.3	55	46.8	9	7.7	82	69.8
Benton	51	26.2	43	22.1	4	2.1	98	50.4
Camden	121	26.1	406	87.7	45	9.7	572	123.5
Carroll	41	47.2	55	63.4	4	4.6	100	115.2
Carter	14	23.4	8	13.4	3	5.0	25	41.8
Cedar	30	20.9	52	36.2	8	5.6	90	62.7
Chariton	21	28.3	14	18.9	3	4.0	38	51.2
Cooper	47	26.5	62	35.0	7	4.0	116	65.5
Crawford	32	13.4	28	11.7	6	2.5	66	27.6
Dade	14	18.5	25	33.1	2	2.6	41	54.2
Daviess	14	16.9	17	20.5	2	2.4	33	39.9
Dent	54	34.7	78	50.1	8	5.1	140	89.9
Douglas	11	8.3	30	22.8	7	5.3	48	36.4
Gasconade	65	44.2	50	34.0	7	4.8	122	83.0
Gentry	16	24.3	55	83.7	2	3.0	73	111.1

[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding.

Number and Rate Per 10,000 of Nurses in Rural Counties by County of Employment and Nurse Type, Continued

County of Employment	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Grundy	38	38.6	83	84.3	9	9.1	130	132.0
Harrison	22	26.3	69	82.6	5	6.0	96	114.9
Henry	88	40.3	199	91.2	21	9.6	308	141.1
Hickory	14	14.7	18	18.9	2	2.1	34	35.6
Holt	15	34.1	17	38.6	1	2.3	33	74.9
Iron	32	31.6	45	44.4	7	6.9	84	83.0
Knox	6	15.2	14	35.4	1	2.5	21	53.0
Lawrence	63	16.4	145	37.8	20	5.2	228	59.4
Linn	38	31.9	70	58.7	6	5.0	114	95.6
Livingston	66	43.3	160	105.1	13	8.5	239	157.0
Macon	61	40.4	95	62.8	10	6.6	166	109.8
Madison	45	37.2	73	60.4	11	9.1	129	106.7
Maries	18	20.7	11	12.6	1	1.1	30	34.5
Mercer	12	33.2	8	22.1	1	2.8	21	58.1
Miller	58	22.6	33	12.9	7	2.7	98	38.3
Mississippi	41	31.1	41	31.1	2	1.5	84	63.7
Monroe	28	32.4	14	16.2	2	2.3	44	50.9
Montgomery	48	41.6	30	26.0	5	4.3	83	71.9
Morgan	26	12.6	27	13.1	3	1.5	56	27.1
New Madrid	62	36.3	34	19.9	6	3.5	102	59.7
Oregon	12	11.4	19	18.0	1	0.9	32	30.4
Ozark	9	9.8	14	15.3	1	1.1	24	26.2
Pemiscot	72	45.6	67	42.4	13	8.2	152	96.2
Perry	43	22.5	141	73.7	12	6.3	196	102.4
Pike	74	40.4	99	54.1	10	5.5	183	100.0
Putnam	12	25.6	23	49.0	2	4.3	37	78.8
Reynolds	17	27.1	19	30.3	2	3.2	38	60.6
Ripley	22	16.6	40	30.1	8	6.0	70	52.7
St. Clair	24	25.5	35	37.2	6	6.4	65	69.2
Ste. Genevieve	31	17.3	104	58.1	16	8.9	151	84.4
Scotland	21	42.8	42	85.7	8	16.3	71	144.8
Shannon	17	20.8	20	24.5	3	3.7	40	49.0
Shelby	19	32.0	21	35.4	3	5.1	43	72.5
Stoddard	111	38.2	131	45.1	20	6.9	262	90.3
Sullivan	30	49.3	29	47.6	4	6.6	63	103.5
Texas	66	26.0	107	42.1	8	3.1	181	71.3
Vernon	64	31.1	185	90.0	14	6.8	263	127.9
Wayne	29	22.5	18	14.0	7	5.4	54	41.9
Worth	7	34.8	4	19.9	1	5.0	12	59.6
Wright	26	14.2	55	30.1	13	7.1	94	51.4

[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding

Number and Rate Per 10,000 of Nurses in Metropolitan Counties by County of Residence and Nurse Type

County of Residence	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Metropolitan Total	11,562	25.0	60,788	131.2	6,342	13.7	78,692	169.9
Andrew	95	53.6	272	153.6	20	11.3	387	218.5
Bates	113	69.9	160	98.9	10	6.2	283	175.0
Bollinger	50	41.2	102	84.1	13	10.7	165	136.0
Boone	614	34.0	2,836	157.2	325	18.0	3,775	209.2
Buchanan	390	44.6	1,038	118.8	89	10.2	1,517	173.6
Caldwell	49	54.3	119	131.9	4	4.4	172	190.7
Callaway	209	46.7	486	108.6	20	4.5	715	159.8
Cape Girardeau	286	36.3	1,325	168.0	213	27.0	1,824	231.3
Cass	377	35.6	1,171	110.7	95	9.0	1,643	155.3
Christian	270	30.5	1,468	165.7	172	19.4	1,910	215.6
Clay	623	24.9	3,856	154.3	316	12.6	4,795	191.8
Clinton	72	35.3	188	92.2	15	7.4	275	134.9
Cole	270	35.2	911	118.7	79	10.3	1,260	164.2
Dallas	43	25.5	135	80.0	5	3.0	183	108.4
DeKalb	90	71.7	232	184.9	21	16.7	343	273.4
Franklin	418	40.2	1,339	128.8	118	11.3	1,875	180.3
Greene	664	22.7	3,800	129.7	382	13.0	4,846	165.3
Howard	41	41.0	127	127.0	2	2.0	170	170.0
Jackson	1,475	21.0	7,662	109.0	802	11.4	9,939	141.4
Jasper	378	31.2	1,540	126.9	195	16.1	2,113	174.2
Jefferson	508	22.6	2,913	129.4	229	10.2	3,650	162.2
Lafayette	209	63.9	332	101.5	33	10.1	574	175.5
Lincoln	192	32.5	608	103.0	42	7.1	842	142.7
McDonald	39	17.1	120	52.5	10	4.4	169	74.0
Moniteau	70	43.4	116	71.9	7	4.3	193	119.6
Newton	121	20.8	461	79.2	38	6.5	620	106.5
Osage	56	41.1	138	101.4	10	7.3	204	149.8
Platte	211	20.2	1,492	142.9	178	17.0	1,881	180.1
Polk	122	37.9	425	132.2	42	13.1	589	183.2
Ray	101	43.9	211	91.7	17	7.4	329	142.9
St. Charles	693	17.2	6,852	170.4	683	17.0	8,228	204.7
St. Louis	1,926	19.4	14,512	146.0	1,739	17.5	18,177	182.8
St. Louis City	479	15.9	2,763	91.9	307	10.2	3,549	118.1
Warren	89	25.0	369	103.5	27	7.6	485	136.0
Washington	72	29.1	148	59.8	18	7.3	238	96.2
Webster	147	37.1	561	141.7	66	16.7	774	195.5

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[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding.

Number and Rate Per 10,000 of Nurses in Micropolitan Counties by County of Residence and Nurse Type

County of Residence	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Micropolitan Total	3,544	49.6	6,735	94.2	674	9.4	10,953	153.2
Adair	136	53.7	235	92.7	19	7.5	390	153.9
Audrain	170	67.0	224	88.2	18	7.1	412	162.3
Butler	187	44.0	439	103.3	68	16.0	694	163.4
Clark	34	50.0	72	105.9	5	7.4	111	163.3
Dunklin	203	69.7	191	65.6	16	5.5	410	140.7
Howell	229	57.1	459	114.4	56	14.0	744	185.5
Johnson	212	39.2	405	74.9	37	6.8	654	121.0
Laclede	141	39.5	236	66.1	29	8.1	406	113.7
Lewis	46	47.1	83	84.9	8	8.2	137	140.1
Marion	217	76.1	327	114.6	27	9.5	571	200.1
Nodaway	119	53.9	222	100.5	18	8.1	359	162.5
Pettis	226	53.4	394	93.1	32	7.6	652	154.0
Phelps	206	46.2	451	101.2	54	12.1	711	159.5
Pulaski	244	46.4	326	62.0	25	4.8	595	113.1
Ralls	62	60.1	76	73.7	4	3.9	142	137.7
Randolph	120	48.5	318	128.5	27	10.9	465	187.9
St. Francois	251	37.3	835	124.2	94	14.0	1,180	175.6
Saline	209	91.8	153	67.2	22	9.7	384	168.7
Schuyler	33	70.8	49	105.2	8	17.2	90	193.1
Scott	257	67.1	558	145.8	55	14.4	870	227.3
Stone	82	25.7	264	82.6	22	6.9	368	115.2
Taney	160	28.6	418	74.7	30	5.4	608	108.7

Number and Rate Per 10,000 of Nurses in Rural Counties by County of Residence and Nurse Type

County of Residence	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Rural Total	3,795	48.0	7,436	94.1	587	7.4	11,818	149.6
Atchison	43	83.6	57	110.8	7	13.6	107	208.0
Barry	44	12.3	290	81.0	18	5.0	352	98.4
Barton	41	34.9	84	71.5	8	6.8	133	113.2
Benton	94	48.3	160	82.3	12	6.2	266	136.8
Camden	132	28.5	512	110.6	43	9.3	687	148.4
Carroll	71	81.8	86	99.1	4	4.6	161	185.5
Carter	41	68.5	58	97.0	11	18.4	110	183.9
Cedar	86	59.9	126	87.8	10	7.0	222	154.7
Chariton	56	75.4	66	88.9	5	6.7	127	171.0
Cooper	103	58.2	209	118.0	19	10.7	331	186.9
Crawford	82	34.3	146	61.0	11	4.6	239	99.9
Dade	19	25.1	81	107.1	2	2.6	102	134.9
Daviess	54	65.2	102	123.2	2	2.4	158	190.9
Dent	100	64.2	136	87.3	16	10.3	252	161.8
Douglas	25	19.0	87	66.0	12	9.1	124	94.0
Gasconade	113	76.8	155	105.4	12	8.2	280	190.4
Gentry	36	54.8	98	149.1	3	4.6	137	208.5

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[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding.

Number and Rate Per 10,000 of Nurses in Rural Counties by County of Residence and Nurse Type, Continued

County of Residence	LPN	LPN Rate	RN	RN Rate	APRN	APRN Rate	Number of All Nurses	Rate of All Nurses[1]
Grundy	49	49.7	108	109.6	9	9.1	166	168.5
Harrison	46	55.1	119	142.5	5	6.0	170	203.5
Henry	152	69.6	213	97.6	18	8.2	383	175.5
Hickory	31	32.5	65	68.1	6	6.3	102	106.9
Holt	29	65.9	55	124.9	4	9.1	88	199.9
Iron	44	43.5	79	78.0	10	9.9	133	131.4
Knox	25	63.1	34	85.9	2	5.1	61	154.1
Lawrence	111	28.9	305	79.5	23	6.0	439	114.5
Linn	68	57.0	149	125.0	9	7.6	226	189.6
Livingston	68	44.7	183	120.2	11	7.2	262	172.1
Macon	103	68.1	180	119.1	18	11.9	301	199.1
Madison	53	43.8	130	107.5	10	8.3	193	159.7
Maries	30	34.5	68	78.2	5	5.7	103	118.4
Mercer	23	63.6	27	74.6	5	13.8	55	152.1
Miller	90	35.1	155	60.5	15	5.9	260	101.5
Mississippi	84	63.7	75	56.9	5	3.8	164	124.4
Monroe	70	81.0	94	108.7	4	4.6	168	194.4
Montgomery	81	70.1	131	113.4	6	5.2	218	188.7
Morgan	82	39.8	134	65.0	4	1.9	220	106.7
New Madrid	104	60.9	119	69.7	15	8.8	238	139.4
Oregon	56	53.2	80	76.0	7	6.6	143	135.8
Ozark	36	39.2	102	111.2	2	2.2	140	152.6
Pemiscot	91	57.6	118	74.7	7	4.4	216	136.7
Perry	81	42.3	242	126.5	18	9.4	341	178.2
Pike	116	63.4	183	100.0	7	3.8	306	167.2
Putnam	25	53.2	70	149.1	1	2.1	96	204.4
Reynolds	30	47.8	43	68.6	4	6.4	77	122.8
Ripley	75	56.4	133	100.1	20	15.1	228	171.6
St. Clair	39	41.5	88	93.6	10	10.6	137	145.8
Ste. Genevieve	39	21.8	215	120.2	17	9.5	271	151.4
Scotland	27	55.1	55	112.2	3	6.1	85	173.4
Shannon	61	74.7	60	73.5	3	3.7	124	151.8
Shelby	48	80.9	71	119.7	7	11.8	126	212.5
Stoddard	193	66.5	298	102.7	23	7.9	514	177.1
Sullivan	41	67.3	63	103.5	8	13.1	112	183.9
Texas	137	53.9	210	82.7	18	7.1	365	143.7
Vernon	65	31.6	244	118.7	20	9.7	329	160.0
Wayne	68	52.8	106	82.3	16	12.4	190	147.6
Worth	23	114.3	29	144.1	3	14.9	55	273.2
Wright	61	33.4	150	82.0	14	7.7	225	123.0

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[1] Rate of LPNs, RNs and APRNs in each geography may not exactly add to Rate of All Nurses due to rounding.

Appendix 2: Nursys Renewal Application MDS Nurse Supply Workforce Survey Questions

Renewal Application MDS Nurse Supply Workforce Survey Questions

Instructions for Collecting the Minimum Dataset

This document is intended to guide states in assembling the standardized nurse supply dataset. It is recommend that states collect the Minimum Nurse Supply Dataset at renewal from all licensed nurses in the state. This design generates a complete set of updated data for an individual nurse every time his or her license is renewed

This Minimum Nurse Supply Dataset is intended to be a data standardization model and in no way is meant to limit data collection in your state.

Essential Elements

The National Forum's Research Committee identified the following 6 variables as being the most essential data elements a state could collect. These variables are already being collected by a majority of states and standardizing the collection of these elements among all states would be the most paramount to workforce analyses.

- Variable 1: Gender
- Variable 2: Ethnicity
- Variable 3: Race
- Variable 4: Year of birth
- Variable 6: Highest level of nursing education
- Variable 12: Employment status
- Variable 17: Employer's zip code

General Rules

1. When applicable and based on the board discretion additional selection can be added. Any additional responses will be mapped to "Other" when sent/added to the National Nurse Workforce Repository.
2. If any of the variables can be derived without asking the participant, then the question is not required to be asked/presented in the survey.
3. This question implies to the jurisdiction presenting the survey or for the jurisdiction this survey is intended for.
4. Some notes are specific to boards that have already implemented the MDS and currently participate in the National Nurse Workforce Repository.

Demographics

Variable 1: Gender
Stem (example): Gender
<mark>Note: General rule 2 applies here</mark>

Response Categories:
Female = F
Male   = M
Non Binary / X - (Optional) = X

Variable 2: Ethnicity
Stem (example): Are you of Hispanic or Latino origin?
<mark>Note: General Rule 2 applies here</mark>

Response Categories:
Yes = X
No = Blank

Variable 3: Race
Stem (example): What is your race? (Mark all that apply)
<mark>Note: General rule 1 & 2 applies here</mark>

Response Categories:

American Indian or Alaska Native   Native Hawaiian or Other Pacific Islander
Asian   White/Caucasian
Black/African American   Other

Variable 4: Year of birth
Stem (example): In what year were you born?
<mark>Note: General rule 2 applies here</mark>

Response Categories: Open ended field or drop-down menu

Variable 5: Entry level education
Stem (example): What type of nursing degree/credential qualified you for your first U.S. nursing license?

Response Categories:

Vocational/Practical certificate-nursing	Baccalaureate degree-nursing
Diploma-nursing	Master's degree-nursing
Associate degree-nursing	Doctoral degree-nursing (PhD)
	Doctoral degree-nursing (DNP)

Variable 6: Highest level of nursing education
Stem (example): What is your highest level of nursing education?

Response Categories:

Vocational/Practical certificate-Nursing	Master's degree-Nursing
Diploma Nursing	Doctoral degree-Nursing (PhD)
Associate degree-Nursing	Doctoral degree-Nursing Practice (DNP)
Baccalaureate degree-Nursing	Doctoral degree-Nursing other

Variable 7: Highest level of education in another field
Stem (example): What is your highest level of non-nursing education?
Response Categories:

Associate degree-Non nursing
Baccalaureate degree-Non-nursing
Master's degree-Non-nursing
Doctoral degree-Non-nursing
Not applicable

License/Certification Information

Variable 8: License type
Stem (example): What type of license do you currently hold ? (Mark all that apply.)

Response Categories:
PN=PN
RN = RN
APRN = (NA , NM, NS, NP)
APRN-CRNA = NA
APRN-CNM = NM
APRN-CNS = NS
APRN-CNP = NP

Variable 9: Year of Initial licensure
Stem (example): Year of initial U.S. licensure
Note: General rule 2 & 3 applies here

Minimum Response Categories: Open-ended field or drop-down menu

Variable 10: Country of Initial RN/PN licensure
Stem (example): In what country were you initially licensed RN/PN?

Minimum Response Categories: Open-ended field or drop-down menu

Variable 11: License status
Stem (example): What is the status of your RN / PN license currently held?
Note: General rule 2 & 3 apply here

Response Categories:
Active = 1
Not Active = 0

Variable 12: Advanced Practice Registered Nurse License/Certification
Stem (example): Indicate whether you are credentialed to practice as an Active APRN as any of the following: (Select all that apply.)
<mark>Note: General rule 2 & 3 applies here</mark>

Response Categories:
Certified Nurse Practitioner
Clinical Nurse Specialist
Certified Registered Nurse Anesthetist
Certified Nurse Midwife
Not credentialed as any of the above

Employment Information

Variable 13: Employment status
Stem (example): What is your employment status? (Mark all that apply)

Response Categories:
Actively employed in nursing or in a position that requires a nurse license full-time
Actively employed in nursing or in a position that requires a nurse license part-time
Actively employed in nursing or in a position that requires a nurse license on a per-diem basis
Actively employed in a field other than nursing full-time
Actively employed in a field other than nursing part-time
Actively employed in a field other than nursing on a per-diem basis
Working in nursing only as a volunteer
Unemployed, seeking work as a nurse
Unemployed, not seeking work as a nurse
Retired

Variable 14: Reason for being unemployed
<mark>Note: General rule 1 applies here</mark>

Stem (example): If unemployed, please indicate the reasons.
Response Categories:

Taking care of home and family	School
Disabled	Difficulty in finding a nursing position
Inadequate Salary	Other

Variable 15: Number of positions employed in
Stem (example): In how many positions are you currently employed as a nurse?
Response Categories: 1, 2, 3 or more

Variable 16: Hours worked per week
Stem (example): How many hours do you work during a typical week in all your nursing positions?
Response Categories: Open-ended field or drop-down menu

Variable 17: Employer's address
Stem (example): Please indicate the state and zip code of your primary RN/PN employer
Response Categories: Open-ended field or drop-down menu

It is recommended that information for both primary and secondary positions be collected for variables 18-20.

Variable 18: Employment Setting*
Stem (example): Please identify the type of setting that most closely corresponds to your RN/PN nursing practice position.
Note: General rule 1, 3 & 4 applies here
 Assisted Living Facility is separated from Nursing Home/Extended (General Rule: 4)
Academic Setting is renamed to School of Nursing (General Rule: 4)

Response Categories:
Hospital
Nursing Home/Extended Care
Assisted Living Facility
Home Health
Hospice
Correctional Facility
School of Nursing
Public Health
Dialysis Center
Community Health
School Health Service
Occupational Health
Ambulatory Care Setting
Insurance Claims/Benefits
Policy/Planning/Regulatory/Licensing Agency
Other (Please specify)

Variable 19: **Employment Position***
Stem (example): Please identify the position title that most closely corresponds to your RN/PN nursing practice position.
Note: General rule 1, 3 & 4 applies here

Response Categories:

Consultant

Nurse Researcher

Nurse Executive

Nurse Manager

Nurse Faculty/Educator

Other-Not Health Related (Please specify)

Advanced Practice Registered Nurse

Staff Nurse

Case Manager

Other-Health Related (Please specify)

Variable 20: **Employment Specialty***
Stem (example): Please identify the employment specialty that most closely corresponds to your RN/PN nursing practice position.
Note: General rule 1, 3 & 4 applies here
Family Health is separated from Adult Health (General Rule: 4)
Neonatal is separated from Pediatrics (General Rule: 4)

Response Categories:

Acute care/Critical Care

Adult Health

Family Health

Anesthesia

Cardiology

Community

Geriatric/Gerontology

Home Health

Maternal-Child Health/Obstetrics

Medical Surgical

Nephrology

Occupational health

Other-**Non-clinical specialties** (Please specify)

Oncology

Palliative Care/Hospice

Pediatrics

Neonatal

Perioperative

Public Health

Psychiatric/Mental Health/Substance Abuse

Rehabilitation

School Health

Emergency/Trauma

Women's Health

Other-**Clinical specialties** (Please specify)

Variable 21: Secondary Employment Setting*

Stem (example): Please identify the type of setting that most closely corresponds to your secondary nursing practice position.

Note: General rule 1, 3 & 4 applies here

Assisted Living Facility is separated from Nursing Home/Extended (General Rule: 4)
Academic Setting is renamed to School of Nursing (General Rule: 4)

Response Categories:
Hospital
Nursing Home/Extended Care
Assisted Living Facility
Home Health
Hospice
Correctional Facility
School of Nursing
Public Health
Dialysis Center
Community Health
School Health Service
Occupational Health
Ambulatory Care Setting
Insurance Claims/Benefits
Policy/Planning/Regulatory/Licensing Agency
Other (Please specify)
No Secondary Employment Setting

Variable 22: Secondary Employment Position*

Stem (example): Please identify the position title that most closely corresponds to your secondary nursing practice position.

Note: General rule 1, 3 & 4 applies here

Response Categories:

Consultant
Nurse Researcher
Nurse Executive
Nurse Manager
Nurse Faculty/Educator
Other-Not Health Related (Please specify)
No Secondary Practice Position

Advanced Practice Registered Nurse
Staff Nurse
Case Manager
Other-Health Related (Please specify)

Pursuant to section 324.001.14(4), RSMo, all licensee/registrant data or records provided by the State Board of Nursing shall be deemed the property of the State Board of Nursing. Accordingly, this report and all data contained herein is the property of the State Board of Nursing and shall not be used without the express written permission of the State Board of Nursing.

Variable 23: Secondary Employment Specialty*

Stem (example): Please identify the employment specialty that most closely corresponds to your secondary nursing practice position.

Note: General rule 1, 3 & 4 applies here

Family Health is separated from Adult Health (General Rule: 4)
Neonatal is separated from Pediatrics (General Rule: 4)

Response Categories:

Acute care/Critical Care

Adult Health

Family Health

Anesthesia

Cardiology

Community

Geriatric/Gerontology

Home Health

Maternal-Child Health/Obstetrics

Medical Surgical

Nephrology

Occupational health

Other-**Non-clinical specialties** (Please specify)

Oncology

Palliative Care/Hospice

Pediatrics

Neonatal

Perioperative

Public Health

Psychiatric/Mental Health/Substance Abuse

Rehabilitation

School Health

Emergency/Trauma

Women's Health

Other-**Clinical specialties** (Please specify)

No Secondary Employment Specialty

- **Note from The Forum** The response options for these variables were derived from the response options to similar questions in HRSA's National Sample Survey of Registered Nurses. After discussion among work group members and Forum members who participated in the initial data summit, we felt that by collapsing some of the response options we would have a better opportunity of meeting our Minimum Data Set goals of capturing data that is already being collected instead of asking for an exhaustive and very detailed list of settings, positions, and specialties.